DOCUMENT RESUME

ED 132 366 95 CE 009 096

TITLE Career Guidance for Indian Youth. Final Report.
INSTITUTION Colorado River Indian Tribes, Parker, Ariz.
SPONS AGENCY Bureau of Occupational and Adult Education (DHEW/OE), Washington, D.C. Div. of Research and Demonstration.
BUREAU NO V0257VZ
PUB DATE 30 Jun 76
GRANT OEG-0-74-1743
NOTE 86p.

EDRS PRICE MF-$0.83 HC-$4.67 Plus Postage.
DESCRIPTORS Academic Achievement; *American Indians; *Career Education; *Career Planning; Class Attendance; Cultural Differences; Cultural Factors; Disadvantaged Youth; Dropout Attitudes; *Educational Needs; Human Resources; Motivation Techniques; Occupational Guidance; *Program Effectiveness; Program Evaluation; Reading Level; Secondary Education; Self Actualization; Student Alienation; Student Attitudes; *Student Motivation; Tables (Data); Tribes; Truancy; Vocational Counseling; Youth Problems
IDENTIFIERS Colorado

ABSTRACT

Initial research conducted by the Colorado River Indian Tribes Rehabilitation Center revealed that lack of career information available to Indian youth, lack of Indian student direction and motivation, and resultant low academic achievement inadequately prepared these students for the world of work. Consequently, a new program (involving seminars, field trips, individual and group counseling, and followup counseling) for the provision and dissemination of career information was designed which included eight specific objectives. To test the effectiveness of the program objectives, a research design was established which used one treatment group and six control groups (composed of Indian and non-Indian youth) matched according to grade, sex, age, I.Q., and achievement. Highlights of significant findings are these: (1) There was increased awareness of services offered by the Colorado River Indian Tribes and of how school problems may be related to cultural factors, and a general impression that Indian students' attitudes toward school were much improved; (2) a significant reduction in school dropouts; (3) significant improvement in vocational awareness; (4) increased motivation toward future vocational opportunities; (5) reduced contacts with the law; (6) increased awareness of future employers; and (7) exposure to successfully employed Indians and Tribal members. (Author/TA)

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CAREER GUIDANCE FOR INDIAN YOUTH

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A Final Report For The

Career Guidance Orientation Research Project

Conducted By:

Colorado River Indian Tribes

Parker, Arizona

Sponsored By:

Research Branch

Division of Research and Demonstration

Bureau of Occupational and Adult Education

U.S. Office of Education

Department of Health, Education, and Welfare

Project Number: V0257VZ CFDA: 13.498

June 30, 1976

The research program design, data gathering, data analysis, and final report preparation was effected by the Valpar Research Team.

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Tucson, Arizona, 1976.

VALPAR PRESS

ACKNOWLEDGEMENTS

The project staff, Mr. Ken Patterson, Director, and Mr. Larry Noble, Research Coordinator, would like to extend their personal thanks to Dr. Glenn C. Boerrigter, Chief, Research Branch Division of Research and Demonstration; Mr. R. G. Bull, Grant Officer; Mr. Mario George, Project Coordinator; Ms. Betty Kover and others within the Research Division whose assistance helped make this project possible.

We wish to thank Mr. Anthony Drennen, Sr., Chairman of the Tribal Council, the Tribal Council and members of the Tribal administrative staff for their moral support and encouragement throughout this project.

One of the unique aspects of this research project was the cooperation and effort extended by school officials and government agency officials in allowing their key personnel to participate as an Advisory Board in implementing this project. The project staff wishes to give special thanks and consideration to the members of the Advisory Board for thier continued efforts and support. Members of the Advisory Board were:

Mr. Kenneth Patterson, Director, Rehabilitation Center, Colorado River Indian Tribes, Chairman of Advisory Board

Mr. Larry Noble, Research Coordinator, Rehabilitation Center, Colorado River Indian Tribes

Ms. Marjorie Puella, Career Education Aide, Pima County Career Education, Sells, Arizona

Mr. William Martin, Principal, Parker High School, Parker, Arizona

Mr. Hipkoe Sakiestewa, Education Coordinator, Bureau of Indian Affairs, Parker, Arizona

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In conclusion, we wish to express special appreciation to the students who participated in this project.

ABSTRACT

The Colorado River Indian Tribes submitted an application to Mr. Robert Mintz, Chief, Support Operations Branch, Contracts and Grants Division of the U. S. Office of Education Vocational Research Branch for a Career Guidance Orientation Research Program on December 26, 1973. It was approved for implementation on July 1, 1974. This program was in operation from July 1, 1974, through June 30, 1976.

The developed model included seminars, field trips, individual and group counseling, and follow-up counseling. The program tested the effectiveness of each of the above as related to career orientation.

The following are highlights of significant findings:

1) There was increased awareness of services offered by the Tribes and how school problems may be related to cultural factors and a general impression that Indian students' attitudes toward school were much improved.

2) Significant reduction in school dropouts.

3) Significant improvement in vocational awareness.

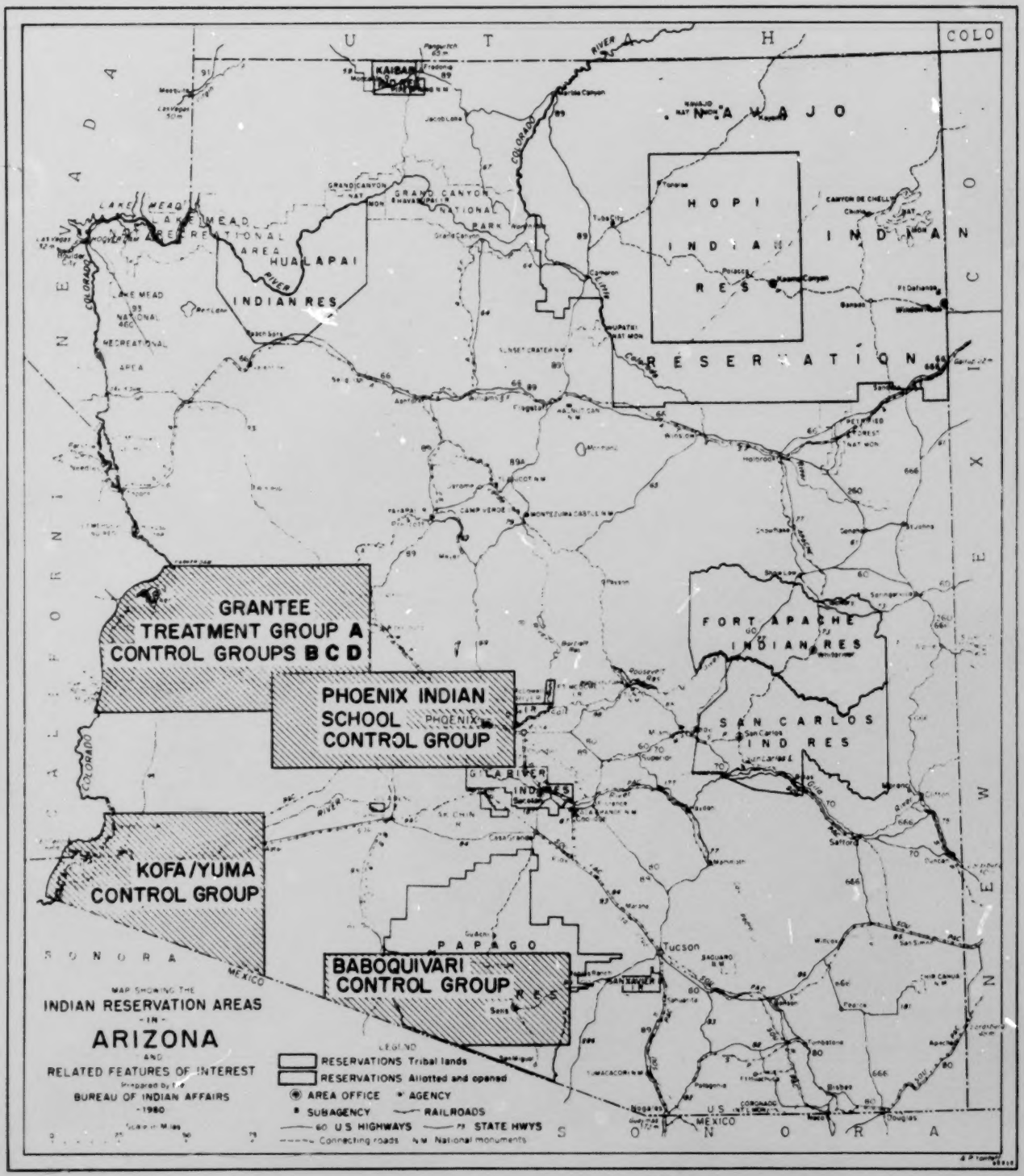
4) Increased motivation toward future vocational opportunities.

5) Reduced contacts with the law.

6) The treatment group increased their own awareness of future employers.

7) The students were exposed to successfully employed Indians and Tribal members.

—GEOGRAPHIC AREAS OF STUDY GROUPS—



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INTRODUCTION

Research compiled by the Colorado River Indian Tribes, Rehabilitation Center, over the past several years prior to this project, indicated a lack of information available to Indian students pertaining to careers within their local areas. Many career opportunities were available or would become available in the near future, however, an instrument designed to explore methods of disseminating available career information to Indian students at an early stage of their academic development was needed. Research also indicated that Indian students lacked direction and motivation which, in turn, impacted negatively on their academic and social achievement.

The Colorado River Indian Reservation is located in Northern Yuma County, with the center of activity in Parker, Arizona. The Tribes which inhabit it are unique among Indian communities throughout the United States in that four tribes make up the Reservation population of approximately 2,000 Indian members. The four tribes represented are the Mohave, Chemehuevi, Navajo, and Hopi Indians. The bill establishing the Colorado River Indian Reservation was signed into law by President Abraham Lincoln in 1865. The Tribal Constitution was ratified by the Congress of the United States on August 13, 1943.

A large majority of the population of the Western United States resides within a 300 mile radius of the Colorado River Reservation. Parker, Arizona, with an approximate population of 5,000, is bordered by the Reservation and provides its nearest community services. The area urbanization trend is limited and

probably will remain so until more industry is developed. At the present, unemployment is high and many jobs are seasonal. The economy of the area is heavily tied to agribusiness and tourism. Most businesses are small, highly specialized and do not tend to hire unskilled or semi-skilled persons. Schools on the Reservation are public and include one high school and two elementary schools in Parker and one elementary school in Poston, Arizona. There is also a Headstart Program as well as a program for mentally retarded children. A large part of previous socio-economic development on the Reservation was initiated by non-Indians. Although this trend is changing somewhat, the expense to the Tribes far exceeds the income. To keep pace with social and economic changes, the Tribes are placing emphasis on education: elementary, high school, and advanced.

The Tribes were faced with the problems of improving the educational level and reducing the juvenile crime rate among Indian youth. Adequate local resources were not available. In order to deal with these problems, the Tribes believed that new programs needed to be developed and tested. It was determined by Tribal leaders that initial funding was essential in the design and testing phase of these programs. The Tribes' ability to continue programs of proven merit appears positive.

In the 1973-74 school year, Parker High School had a population of 542 students, 132 of which were Indian. At the conclusion of the first quarter grading period, a total of 186 failing grades were reported. Indian students comprised 24% of

the total population and received 83 failing grades, or 45% of the total failing grades reported. Comparing available statistics from school years 1971-72 and 1972-73, the percentages were almost identical. Indian students, while comprising less than 25% of the population, were receiving between 45% and 50% of failing grades. Considering only sophomore, junior and senior Indian students, only 2% of them were represented in the upper 50% of their respective classes.

In reading tests administered during the 1973-74 school year to all students in grades one through eight, the local elementary schools were ranked in the 18th percentile when compared with rural schools (population less than 25,000) across the nation. On the average, Indian students were ten percentile points below the local average. Local school administrators stated that reading ability among many Indian students was approximately three years below grade level.

Of the 1,000 Indian youth on the Reservation during school year 1973-74, only 750 were attending public schools serving the region. The elementary dropout rate was approximately 12% and the high school rate was approximately 15%. During three semesters, 1972-74, 35 Indian students dropped out of high school with more anticipated before the end of the 1974 school year.

Also, the rate of truancy among Indian students was found to be exceptionally high. After ten weeks of school, more than 100 cases of truancy had been verified, a small percentage of these (12%), had been for one or two classes only--the rest

for at least one day. During fiscal year 1972, 17 major crimes and approximately 100 minor offenses were allegedly committed by Indian youth.

A large percentage of the students not attending school or becoming involved with the law were found to have extremely limited parental control. Contributing heavily to the problems experienced by Indian youth are the following:

1. Inadequate counseling and guidance services to relate to Indian students.
2. Lack of motivation of the Indian student to advance his/her education.
3. The lack of an organized professional staff, with sufficient funds to pursue the problems of Indian students.
4. Failure on the part of the student and parent to see the relationship between the world of work and education.
5. Lack of a definite reality oriented, career education program.
6. Inadequate communication between school, home, Tribe and helping agencies.

On March 1, 1973, through funding by the Bureau of Indian Affairs, the Colorado River Indian Tribes Rehabilitation Center was established. This program became part of the Human Resource Committee.

A limited services program provided by the newly developed Rehabilitation Center in school related activities has proven beneficial. The truancy and dropout rate compared to the 1972-73 school year was reduced slightly, students were counselled for personal and academic reasons and the school

administration called on Rehabilitation personnel for assistance in solving problems involving Indian students. The high school vice-principal stated that the program would be much more beneficial if full-time personnel were available on campus. At that time, a certified counselor was available to the Indian students two half days a week, which was not sufficient.

In dealing with Indian youth at the high school, Rehabilitation personnel found that many children came from families containing three or more siblings. One of the reasons given for poor grades was a lack of proper study area at home, i.e. no privacy or quiet area in which to complete homework assignments.

Counseling services in the elementary schools were nonexistent. In the high school, one full-time female counselor and one male counselor available for two periods per day served 550 students. An excessive amount of counselor time was being spent performing clerical assignments and student scheduling, leaving very little time for individual and group counseling.

High school counselors were not aware of the variety of career opportunity programs available to Indian students offered outside of the school; thus many students were not afforded the opportunity of taking advantage of them.

The Colorado River Indian Tribes Rehabilitation Center was initially developed to deal within the Tribal law and order system; to provide probation supervision and counseling services to offenders. Preventive programs were deemed more desireable and counseling services were established within the public schools

in an effort to reach youth prior to their becoming involved with the legal system.

The Rehabilitation Center has identified the following major obstacles confronting youth of the Colorado River Indian Reservation: lack of professional counseling services, inadequate study areas, and lack of career orientation. Labor market demands for progressively more sophisticated skills among its prospective employees can create pressure-laden and frustrating situations for students engaged in career preparation. Students unable to cope with these demands and pressures manifest their frustrations in many ways. Some rebel and some simply give up and leave the system entirely.

The findings of the Rehabilitation Center definitely indicated the need for a method of early age career information dissemination to enable Indian youth to better prepare themselves for the future.

STATEMENT OF THE PROBLEM

It was quite evident that the Colorado River Indian Tribes needed to design a workable method for disseminating career information to Tribal youth and to test its effectiveness in terms of impact and comparability to present methodology. It was also apparent that an external vehicle needed to be provided through the Tribal Council because budgetary limitations within the school district did not allow for the necessary concentrated level of priority to Indian youth. If a valid method having a high benefit ratio could be found, it could be presented to the school system for integration in ongoing programming.

The following specific objectives were ennumerated in order to test the effectiveness of the Colorado River Indian Tribes Career Guidance Orientation model:

1. To better equip school counseling staff to evaluate present and future career opportunities in their local areas.

2. Existing career orientation programs will be studied and the results reported on how effectively they relate to Indian youth.

3. Provide the student with information and exposure to job families that will be available to them following appropriate education and/or training.

4. Instill motivation into the Indian youth that there is a future for them where they can follow any avenue they desire, without having to give up culture and tradition.

5. Create a better understanding between the student and future employers.

6. Career Orientation on the Colorado River Indian Reservation will be expanded from one day on the Reservation to three days and will be held away from the Reservation. This will encourage more

students to participate and will make it possible to have the orientation near resource people and already existing facilities.

7. Expose the Indian youth to Tribal members and other Indians in a variety of professional and/or vocational endeavors.

8. Provide school personnel with more efficient Career Orientation methodology.

NOTE TO READER: Our report deviates from usual style. To facilitate better understanding of the report, objectives, model action, results and conclusions are together, rather than in separate sections.

METHODOLOGY & CONCLUSIONS

In order to activate the testing of the Career Guidance Orientation Model, there were several initial steps that had to be resolved. First, the project staff needed to secure the technical assistance necessary for effective analyses. Second, the project staff needed to secure the authorization for cooperation from several governmental agencies. Third, the project staff needed to be certified as a resource for providing guidance and counseling services within the school system.

The Colorado River Indian Tribes, through the Project Director and Research Coordinator, explored resources for qualified research developers plus the necessary government agencies, technical advisors, and occupational consultants in order to develop a highly sophisticated method of implementing this project. They advertised for a research development contractor. From those submitted applications, the Valpar Corporation, under the direction of Dr. Donald R. Ross, was chosen to provide the technical assistance necessary for the design implementation and analysis. Valpar Corporation is a private corporation formed in 1973, offering a wide range of comprehensive rehabilitation services. Organizationally, Valpar consists of five divisions:

1) Rehabilitation Services Division provides vocational evaluation through the Valpar Component Work Sample Series, psychological evaluation, individual and group counseling, Loss of Earning Capacity evaluation, job development and placement and economic

expertise. These services are geared primarily to the industrially injured worker. In the past two years, Valpar has served over 600 industrially injured workers through its offices in Tucson and Phoenix. A new office has recently been opened in Santa Ana.

2) Management/Research Division offers research techniques in claims management and factor analysis affecting the reemployment of the injured worker as well as consultative services to rehabilitation facilities, agencies and private business in the areas of facility utilization, program development and expansion funding and research. In addition, the Management/Research Division has had considerable experience in program analysis involving the school, the Reservation, the Tribe, and within the field of rehabilitation.

3) EPIC Division (Educational Programs for Individual Children) provides aid in the evaluation of instructional programs and systematic procedures for the collection and analysis of information to assist in decision-making and management of education programs.

4) Training and Education Division provides short-term training in rehabilitation, claims management, workshop management, and educational evaluation.

5) Component Work Sample Manufacturing Division is responsible for the development, manufacturing and distribution of the Valpar Component Work Sample Series. These have proven effectiveness in rehabilitation centers, educational institutions, hospital settings, vocational training facilities, and industrial settings. To date, inquiries have been received from 50 states with work sample components being used in 37 states.

Because the Rehabilitation Center is involved in a contractual agreement with the Bureau of Indian Affairs and the Colorado River Indian Tribes, authorization needed to be granted by the Bureau of Indian Affairs' Branch Chief, the Division of Law Enforcement Services, Mr. Eugene Suarez, Washington, D.C.; Mr. Ray Butler, Director of Social Services, Bureau of Indian Affairs, Washington, D.C.; Mr. John Artichoker, Chief of the Bureau of Indian Affairs Phoenix area office; and Mr. William Lawrence, Superintendnet of the Bureau of Indian Affairs, Colorado River Agency.

The Colorado River Rehabilitation Center was acknowledged by the Northern Yuma County Union High School Board of Education as a state certified resource for providing guidance and counseling service within the Parker High School System.

An Advisory Committee was formed in order to provide a broader base of understanding and interpretation of the findings. The Advisory Committee was involved to a greater extent in this project than in most because each step was group-determined.

Since this was principally an Indian project, non-Indian Committee members had the opportunity to both contribute and expand their cultural awareness.

The Advisory Committee functioned like a board of directors. They approved all matters pertaining to questionnaire design, research methodology, research design, data element selection, data element definition, final report outline, presentation of findings, interpretation of findings and the final draft of the report. The Advisory Committee met on a quarterly basis on the following dates:

October 22 - 23, 1974 - Casa Grande, Arizona
January 27 - 29, 1975 - Casa Grande, Arizona
April 21 - 23, 1975 - Lake Havasu City, Arizona
July 27 - 29, 1975, Tucson, Arizona
October 20 - 22, 1975, Phoenix, Arizona
March 15 - 17, 1976, Yuma, Arizona
June 8 - 9, 1976, Phoenix, Arizona

Detailed minutes of the meetings were kept. In addition to the foregoing, it is felt that the medium of Quarterly Advisory Committee meetings lent cohesiveness to the project as well as to the efforts of each constituent member. It provided a format for discussion, problem solving and the sharing of information germaine to the project and provided a mechanism for the reporting of school and community projects having direct impact on Indian youth. At each meeting, various Advisory Committee members reported student enrichment activities that had transpired since the preceeding meeting. This served to keep other Committee members apprised of current school and community activities in each of the respective geographical areas. It

additionally provided a vehicle for group discussion of areas of common concern and suggestions for remedial methodology.

After successful completion of the aforementioned and initial project steps, project staff and a newly-formed research team developed the foregoing plan that was utilized in testing the effectiveness of the project model in meeting stated objectives and analyzing the significance of behavioral change of the Colorado River Indian Tribal youth. The following are the model actions, results and conclusions:

Analyzing the Effectiveness of Objective 1.

> School counseling staff personnel will be better equipped to evaluate present and future career opportunities in their local areas.

Model Action: The program staff conducted in-service training discussions with counselors at Parker High School on present and future career opportunities for the Colorado River Indian Tribal youth in his/her local area. Such discussions were documented by the program staff. The research team conducted in-depth post interviews with the school counselors, vice-principal and principal in order to determine the degree of increased awareness of career possibilities for Indian youth.

Results: Personnel at Parker High School involved in the guidance and/or counseling process have been kept aware of those occupations presented to students via field trips. The Principal, Mr. William Martin, is a member of the program Advisory Board.

Attempts have been made to keep the counselors aware of Tribal endeavors to expand their business enterprise so they

are aware of possible new areas of employment. In addition, they were invited to accompany students on a field trip but previous commitments would not permit it.

School personnel have been asked to assist students with class schedule changes and when appropriate, the school counselors were made aware of individual students' plans for future education and career. They have also been made aware of the procedure that Indian students follow in applying for educational funding.

In addition to those areas available to all students, Indian students also may seek Tribal and Bureau of Indian Affairs funding as well as specific scholarship programs for Native Americans.

School staff, through the medium of in-service training, have been informed of some unique characteristics of Indian youth that hopefully has provided insight into better methods of assisting them.

TABLE 1

Results of Interviews with Counselors & Administrative Staff

1.	There has been a change in the attitude of the Indian students toward school. Their attitudes have been improved.
2.	The individuals interviewed did not feel there had been an increase in awareness on the part of the school staff of the cultural aspects of the Tribes.
3.	School officials were more aware of services available through the Tribes.
4.	Counselors and school officials are more aware of the problems of Indian youth that relate to cultural differences.

Conclusion: From the results of the information provided to the school staff combined with the results of the interviews with Parker High School counselors/administrators, it is concluded that this project has increased awareness of services offered by the Tribes and how some school problems may be related to cultural factors. There was also a general impression among school officials that the Indian students' attitudes toward school had been much improved. There was no indication of increased awareness on the part of the school personnel as to future career opportunities for Tribal youth in the Parker area.

Analyzing the Effectiveness of Objective 2.

> Existing career orientation programs will be studied and the results reported on how effectively they relate to Indian youth (see pp. iv, GEOGRAPHIC AREAS OF STUDY GROUPS).

Model Action: Specific career guidance programs from several Arizona high schools serving Indian students were analyzed. The research team described the existing career orientation programs and gathered data on their effectiveness.

Results: The following are summary descriptions of the career awareness programs in the four high schools involved in this study:

*** Parker High School in Parker, Arizona--Vocational course offerings at Parker High School fall into seven broad categories, namely: Industrial Arts, Trades and Industry, Agriculture, Business, Automotive, Home Economics, and Diversified Occupations. Subjects within these areas are segmented into Introductory, Intermediate, and Advanced coursework levels. A World of Work class--a general career-oriented overview--is

offered at the junior and senior level.

Instructional methodology consists of didactic classroom presentation, the use of films and other audio-visual aids, liberal use of guest speakers from area industry and field trips.

The Parker area is unique in that employment opportunities in the immediate area appear good due to the Central Arizona Project and plans for a nuclear power plant.

*** Baboquivari High School in Sells, Arizona--Exposure to the World of Work begins at the elementary school level with focus on the child and his/her relationship to self, home, family, neighborhood and community. Field trips are utilized to assist in the recognition of community worker roles and their interdependent relationships. Some student self-evaluation of vocational skills and interests is done on the 5th and 6th grade levels.

In the secondary school setting, coursework in the areas of agriculture, business education, the building trades and home economics is offered the interested student. Emphasis is placed upon the development of positive vocational attitudes; and educational and job exploration. Job exposure field trips during which the student can spend a day on a job with a worker in the Tucson area is an innovation which will be expanded upon. A career education aide is present at the school one day per week and is assisting teachers on all grade levels in the development and acquisition of materials for instructional purposes.

Instructional methodology consists of didactic classroom activities, field trips, utilization of Baboquivari High

School graduates as guest speakers, and a mobile unit which provides vocational awareness through the medium of work sample exposure.

*** Phoenix Indian School, Phoenix, Arizona--Career awareness at Phoenix Indian School begins at grade 9 with a semester's course entitled "Careers," an overview of the World of Work. In September of one's sophomore year, the World of Work Inventory is administered, and results are utilized in career planning. The Career Education Employment Program is available to 11th and 12th graders in which students receive credit, payment and/or employment.

Subject offerings at Phoenix Indian School include business courses such as math, language, bookkeeping, accounting and business machines; skilled trades coursework such as automotives, painting, carpentry, welding and metal work, printing, upholstery and architectural drafting; and other subjects such as arts and crafts, aviation and home economics.

Stress is placed on the practicalities of everyday living with emphasis on personal budgeting, how to choose an apartment or dwelling, how to obtain transportation and effective and efficient utilization of one's resources in meeting the demands of daily living.

Methodology utilized consists of didactic classroom activities, use of audio-visual aids, participation in College Day and guest speakers and field trips.

*** Kofa High School, Yuma, Arizona, ESEA Title III Project--The Yuma Union High School District #70 ESEA Title III

Project was designed to: (1) encourage greater Indian student enrollment in the high school; (2) improve Indian community involvement in the school system; and (3) provide greater awareness of the Indian Culture among school district personnel. The Project, funded for three years--1972-73 to 1974-75 school years--was mutually conceived and developed through the combined efforts of the school administration and the Indian community as a supplement to the regular high school curriculum. Kofa High School has a distributive education program in which students are placed in area industry. It is, however, highly academically-oriented.

Project methodology consisted of the inclusion of Indian Culture classes in the school curriculum, demonstrations and educational films media presentations and other cultural activities carried out within the school and on the Reservation. Project personnel carried out liaison activities between the Indian community and school personnel. Students were encouraged to make more frequent use of school guidance personnel in planning their futures.

A total of 79 students participated in the study.

Conclusion: After thorough analysis of these program descriptions, it was concluded that the ongoing programs are rather typical of most career awareness programs in secondary schools. The differences were those schools that had special projects, such as the ESEA Title III Program in Yuma and the ESEA Title IV Program in Parker, which applied additional special effort during the life of the project. However, upon the conclusion

of federal monies, it appears that some of the features were maintained in the school's ongoing program. When analyzing comparative effectiveness, a trend in favor of one school's program (not counting the treatment effort) over any other was not evident.

Analyzing the Effectiveness of Objective 3.

> Provide the student with information and exposure to job families that will be available to them following appropriate education and/or training.

Model Action: During the course of the program, certain types of occupational information, field trips, and other types of exposure were conducted. Such efforts were documented and the research team analyzed its effectiveness.

Results: Bureau of Indian Affairs personnel, Mr. Harvey Webb, Ms. LaWanda Laffoon, Mr. Hipkoe Sakiestewa, and Mr. Carl Moore have presented information to students at Parker High School pertaining to education and employment assistance. Sources of funding and procedure in applying for assistance have been covered. Many of the students were given the GATB test.

Students have been exposed to Tribal and Bureau employment through seminars and by attending various Tribal functions and meetings.

Some have participated by assuming the role of Tribal government personnel and Tribal employees. They spend an entire day and actively participate in the working procedure.

A local seminar was conducted in which Tribal members and others currently involved in a variety of careers briefly explained their job, and related jobs, and then held small group discussions.

Speakers and professions included the following: (1) Mr. Rodney Lewis, Attorney, legal professions; (2) Ms. Carole Garcia, Counselor, health professions; (3) Ms. Vikki Stevens, Doctor, medical professions; (4) Mr. Bill Alcaida, Farm Manager, agri-business vocations; (5) Ms. Veronica Murdock, Tribal Vice-Chairman, Tribal employment opportunities; (6) Mr. Bill Lawrence, Superintendent, Bureau of Indian Affairs, Parker Agency, Bureau employment opportunities; (7) Mr. Harry Patch, Jr., policeman, law enforcement vocations; (8) Ms. Sandra Dick, Administrative Assistant, secretarial and clerical vocations; (9) Ms. Maxine Morris, teacher, education vocations; (10) Mr. Ray Bernal, banker, banking and related vocations; and (11) Mr. Morris Sevada, Jr., foreman, electrical lineman vocation.

Students were also introduced to recruiters from the military branches as well as representatives from various vocational training centers. Health career representatives met on campus with select groups of interested students; Ms. Carole Garcia, a Health Careers Counselor, conducted these meetings.

Individual and group counseling was utilized as a method of disseminating information to students.

Field trips were taken in an effort to expose students to a wide variety of career possibilities; areas selected were based as much as possible on the assumption that these or related jobs would be available in the students' home area within the next five to ten years.

Field trips included exposure to the following:

1. Metropolitan Water District of Southern California, Los Angeles

   Two visits were made to this facility and the tours included the complete range of jobs including management, secretarial, accounting, equipment operators and maintenance, personnel services, architecture, linemen and meter readers.

2. Southern California Edison Nuclear Plant, Los Angeles

   Here the emphasis was on those areas relating to computer processing such as operators, processors, maintenance, and installation.

3. San Onofre Nuclear Generating Station, Los Angeles

   Again, emphasis was computer related occupations.

4. Eagle Mountain Kaiser Steel Mine, Eagle Mountain, California

   All areas including support services were included such as geology, equipment operation and maintenance, laborers, supervisory positions, and support services.

5. University of Arizona, Tucson, Arizona

   Two visits to a health career seminar included the following vocations and professions: doctor, nurse, x-ray technician, pharmacist, mental health, rehabilitation, food services, and para-professional aides.

6. Youth Development Conference, St. Louis, Missouri

   A select group attended this conference which had the primary objective of encouraging participation in youth-related areas such as recreation, job development, counseling and leadership.

7. Intermountain Indian School, Brigham City, Utah

   The primary objective of this tour was to introduce students to the vocational training areas available, job possibilities and possibly related type jobs.

8. Dohrmans Innkeeper, Los Angeles

   Exposed students to those careers in the restaurant, motel, hotel industry that are not readily observable such as manufacturing, sale, repair and service of equipment and supplies.

9. Universal Studios and Disneyland, Los Angeles

While these were primarily recreational and performed in conjunction with other tours, it also served to introduce students to a multitude of jobs such as tour guides, support and maintenance, design, concession, ground crew, and management.

Conclusion: After review of the materials presented, i.e. student attendance information, it was concluded by the research team that the Career Orientation Project did expose students to a wide variety of career possibilities that are or will be available to them. (It is noted that the school counseling staff was unable to attend most of these career awareness ventures. In conclusion, the research team believes that if the counseling staff had been able to accept the invitations, they would have, in fact, become more aware of future career possibilities in the Parker area and conclusions reached for Objective 1 would have been substantially different.)

Analyzing the Effectiveness of Objective 4.

Instill motivation into Indian youth that there is a future for them where they can follow any avenue of self-determination they desire, without having to give up culture and tradition.

Model Action: Individual and group counseling, seminars and field trips were utilized to impress upon the Indian students that their future is what they make it.

Previous research has indicated that it is more advantageous to take students to a variety of businesses and industries, rather than merely talk about them. In this way, the students can see the multitude of jobs that exist within those fields that may possibly be present in the Parker area within the near future.

Working conditions, benefits and necessary training/education were stressed. Students took advantage of the opportunity to question those working in areas of their interest.

Follow-up counseling was conducted to impress upon students that those jobs are within their grasp, if it is what they desire. In addition, it has been shown that they are able to maintain their traditions and culture and still engage in a variety of careers. This was done largely by involving Indians who have entered the world of work. Wherever possible, Indian personnel working in business and industry were invited to speak with and answer questions of students.

School personnel have been kept informed of the job clusters and asked to assist in class scheduling where necessary.

In order to test the effectiveness of Objective 4, a research control group design was established. There were seven (7) groups formulated for the purposes of this study:

A. Treatment Group: All of the sophomores in Parker High School in the Fall of 1974 who were members of the Colorado River Indian Tribes constituted the Treatment Group. There were 23 students in this group.

B. Control Group: An equal number of non-Indian sophomore youth were selected from Parker High School and matched as closely as possible to the Colorado River Indian group.

C. Control Group: Consisted of the 1973-74 sophomore class at Parker High School meeting the same selection

criteria as the Treatment Group. There were 29 students in this group.

D. Control Group: Consisted of the 1973-74 non-Indian sophomore group at Parker High School meeting the same selection criteria as Control Group "B". There were 29 students in this group. Both Groups "C" and "D" were juniors in 1974-75.

E. Control Group: Consisted of a group of 23 Indian youth selected from the sophomore class of the Phoenix Indian School and matched as closely as possible to the Treatment Group.

F. Control Group: Consisted of a group of 23 Indian youth selected from the sophomore class of the Baboquivari High School at Sells and matched as closely as possible to the Treatment Group.

G. Control Group: Consisted of 6 sophomore students enrolled in the Kofa High School and Yuma High School of Yuma during 1974-75. The other matching criteria could not be met.

The criteria for matching the groups is as follows: The first step was to select the Indian group (Treatment Group) from Parker High School. Then a group of non-Indians also from Parker High School were matched to them. The matching criteria was: a) grade (10); b) sex (males were matched to males and females were matched to females); c) age (+ or - 6 months); d) IQ (+ or - 8 IQ points); e) achievement (academic testing,

SRA, etc. + or - 1.5 grade levels). Twenty-three matched pairs were found between Treatment Group "A" and Control Group "B". The matching process involved the stratefied sampling procedure with a random start based on alphabetical order. The purpose of Control Groups E, F, and G was to get other school systems involved in the comparison and to get data on non-influenced, non-Parker groups. The basic comparisons to be made will be to compare Group A with Group B, Group C with Group D, Groups A & B with Groups C & D, and Groups E, F, and G with Treatment Group A.

The data gathered in order to compare the difference among and between the above groups was as follows:

1. Motivation toward future (all groups)
2. Dropout rate (all groups)
3. Classes missed and days absent (all groups)
4. Delinquency rate (Parker only)
5. Grade point average (all groups)
6. Working: a. full-time; b. part-time (all groups)
7. Data from a specially constructed vocational awareness interview (all groups)
8. Data from a specially constructed parental interview (Parker Group A only)
9. Conference reports (all groups) (Phoenix Indian School is a 24-hour boarding school)

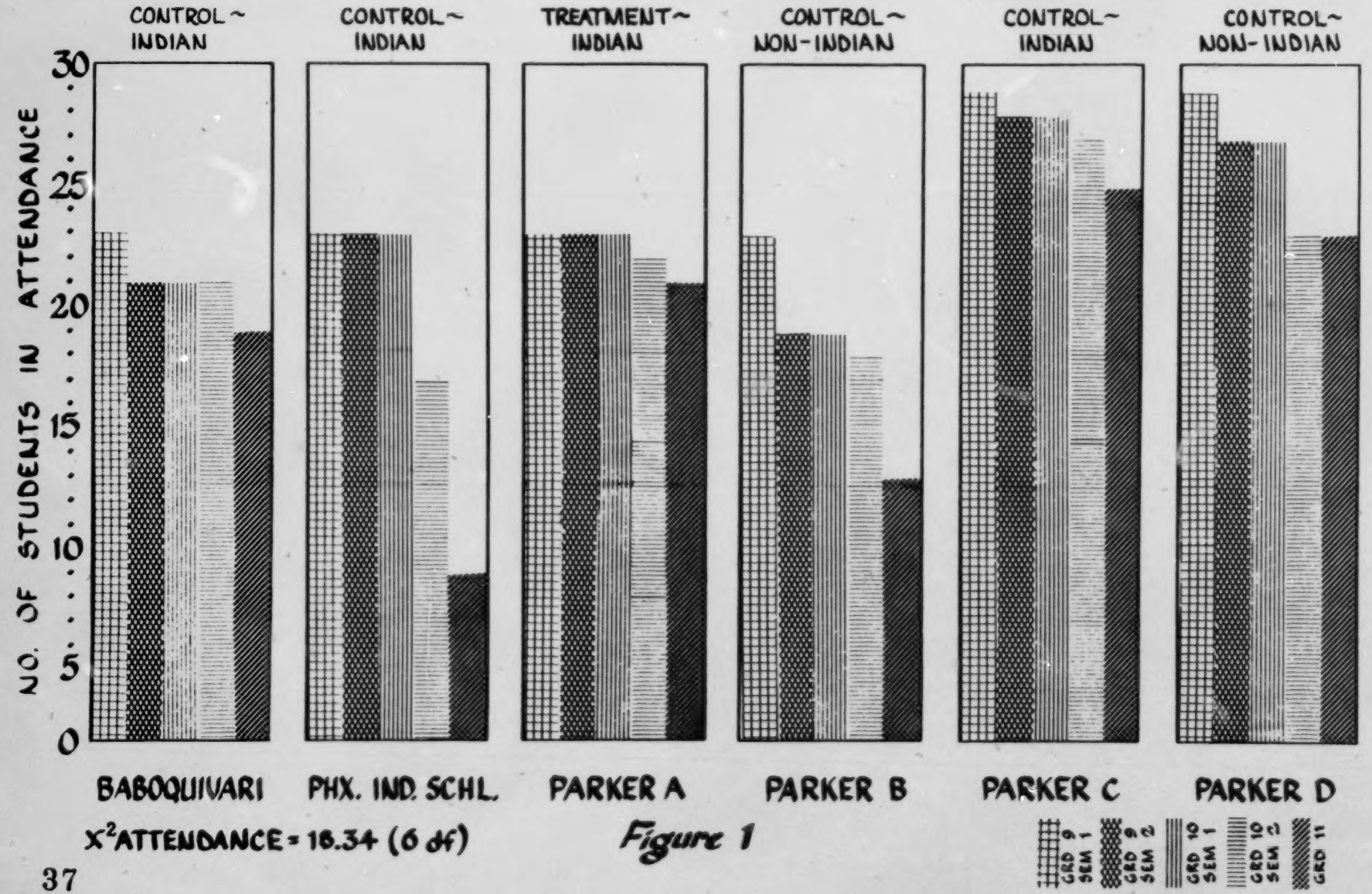
Appropriate statistical techniques were used in analyzing the differences between the above information.

Results: The following will be a series of figures and tables representing the data gathered by the research team for the analysis of this objective. It should be noted that Groups A, B, C, D, E, and F met the stringent matching requirements

of the research team and will be included in all figure and table presentations. The Kofa/Yuma High School Group G did not meet the matching criteria and is included only as a general comparison and is not represented in all figures and tables. Even when represented, the reader must be cognizant that the Kofa/Yuma High group was not matched to the treatment group, and conclusions drawn from a comparison of that type should be regarded with speculation.

Figure 1 represents attendance (those who did not drop out). By inspecting figure 1, the reader will notice that only two individuals (8%) from Group A dropped out of Parker High School during the 18-month period. It should also be noted that one of these individuals transferred to a residential Indian school and was attending school during the entire treatment period, leaving only one (4%) as a "legitimate" dropout. That student re-enrolled the second semester of the junior year. The second semester is beyond the data gathering phase so for the purposes of this research project, that individual is counted as a dropout. This attendance figure compares to Parker Group B, which had ten dropouts (43%). Of these ten dropouts, the research team verified that six (26%) were, in fact, not in school. Four of the ten did request transcripts to be sent to other school districts; therefore they may have been attending other schools. However, the six to one verified dropout ratio of matched sophomore groups is substantially better than the dropout ratio of 11th grade students (Groups C & D) from the same high school. Group C had four confirmed dropouts (13%) during the same time period. Group D had six dropouts (20%) with two of those six being apparent transfers

ATTENDANCE



x^2 ATTENDANCE = 16.34 (6 df)

Figure 1

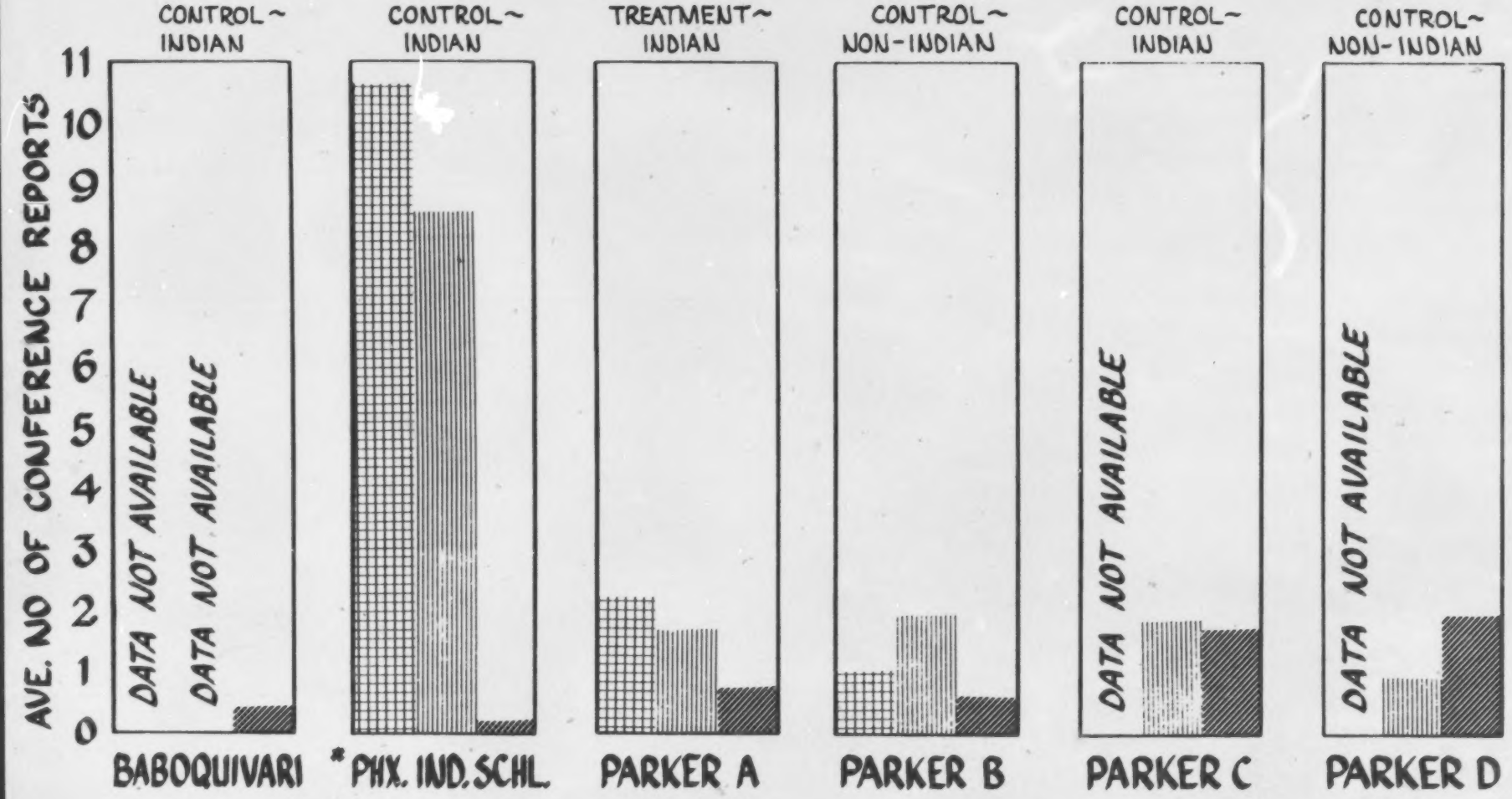
to other school districts. Therefore, the ratio of Indian to non-Indian dropouts of Groups C & D is equal at four (13%). When this was analyzed in comparison to other school districts, it was found that Baboquivari had four confirmed dropouts (17%) during this same period and Phoenix Indian School had fourteen dropouts (60%). After analysis of the Phoenix Indian School, the research team concluded that some of the Phoenix Indian School students were probably transfers but this could not be verified. Of the six students in Yuma, one (16%) was a confirmed dropout. The Yuma student withdrew from school to work for a year and plans to continue his education.

A chi square analysis was performed on the number of dropouts per group and the calculated chi square value was 18.34 (Figure 1) with 6 degrees of freedom (df). This chi square value of 18.34 is significant beyond the .05 level.

The conclusion drawn from the analyses of this information is that the attendance rates of the seven groups differed significantly one from another and the Parker Group A (treatment group) had the highest attendance at the conclusion of the study. The average dropout rate was 28% for the six control groups, while only 8% for the treatment group.

Figure 2 represents the mean number of conference reports. A conference report is a written method of documenting inappropriate behavior. (Phoenix Indian School is a 24-hour boarding school and conference reports occur at any time.) By inspecting Figure 2, the reader will notice that the mean number

CONFERENCE REPORTS



X^2 GRADE 9 = 20.39 (3 df)
X^2 GRADE 10 = 24.74 (6 df)
X^2 GRADE 11 = 4.71 (6 df)

*A 24 Hour Boarding School

Figure 2

of conference reports for Group A continued to drop during the entire term of the project. This trend was also noted for the Phoenix Indian School, but was not apparent in any of the other three Parker High School control groups. In order to analyze the information in Figure 2, a chi square value was computed on the data from the 9th grade, another chi square value for the data in the 10th grade and a third chi square value for the data in the 11th grade. The reader will notice that the chi square value of 20.39 with 3 df (Figure 2) was calculated for the mean number of conference reports in the 9th grade; thus there was a significant difference in the number of conference reports received by these students in their first year of high school.

By further analysis, it was concluded that this significance could be attributed to the large difference between the mean number of conference reports for the Phoenix Indian School control group and the rest of the groups. A chi square value of 24.74 with 6 df (Figure 2) was calculated for the mean number of conference reports during the 10th grade year. This chi square value is significant beyond the .05 level. The conclusion is drawn that there was a significant difference in the mean number of conference reports among the seven groups during the 10th grade year. Again, it was concluded that there was a great difference between the mean number of conference reports for the Phoenix Indian School control group and all the rest of the groups.

A chi square value of 4.71 with 6 df (Figure 2) was calculated for the mean number of conference reports during the 11th grade. It is interesting to note that the net result of

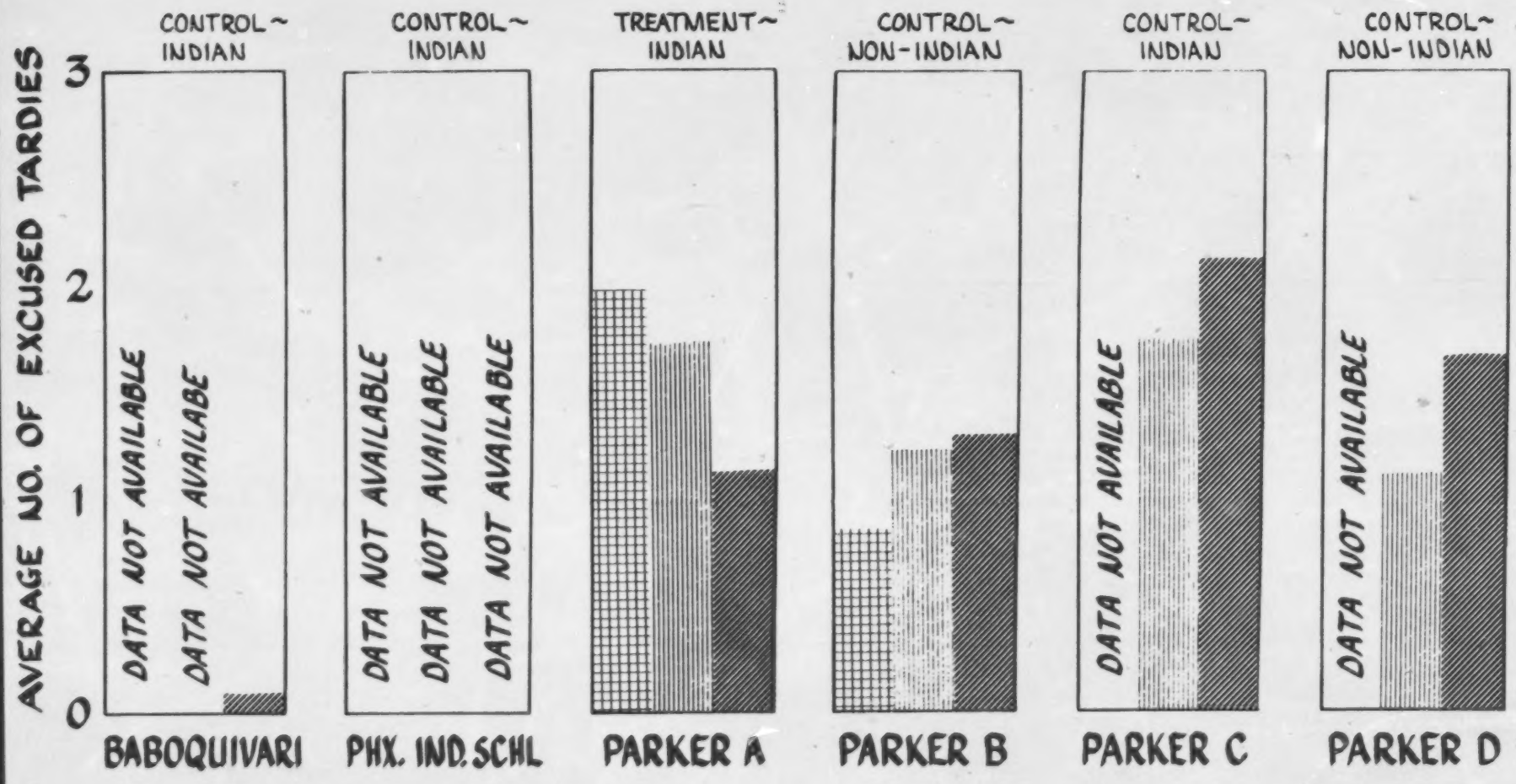
this analysis indicated a significant difference in the mean number of conference reports in the 9th grade and again in the 10th grade, but this difference disappeared during the 11th grade. This phenomenon was not attributed to the effects of the treatment group. It can be almost entirely attributed to the significant reduction in conference reports of the Phoenix Indian School from an average of 10 in the 9th grade to an average of 8.5 in the 10th grade to an average of .11 in the 11th grade.

The research team concluded that there was no significant effect in the decrease of mean number of conference reports for the Parker Group A (treatment group).

Figure 3 represents the mean number of excused tardies. By inspecting Figure 3, the reader will note that the trend in the mean number of excused tardies for Parker Group A was continually low, while all of the remaining groups had an upward trend. The chi square statistic was applied for the mean number of excused tardies at the 9th grade level (chi square .60 with 2 df (Figure 3), at the 10th grade level (chi square 2.67 with 5 df), and at the 11th grade level (chi square .76 with 4 df). By analysis of the chi square values (Figure 3), it was concluded that none of the chi square values were significant and thus there was no difference in the mean number of excused tardies among the groups. Therefore, the conclusion was drawn that there was no significant difference in excused tardies among the groups.

Figure 4 represents the mean number of unexcused tardies. There was no apparent trend in the mean number of unexcused tardies. The chi square statistic was applied for the mean number

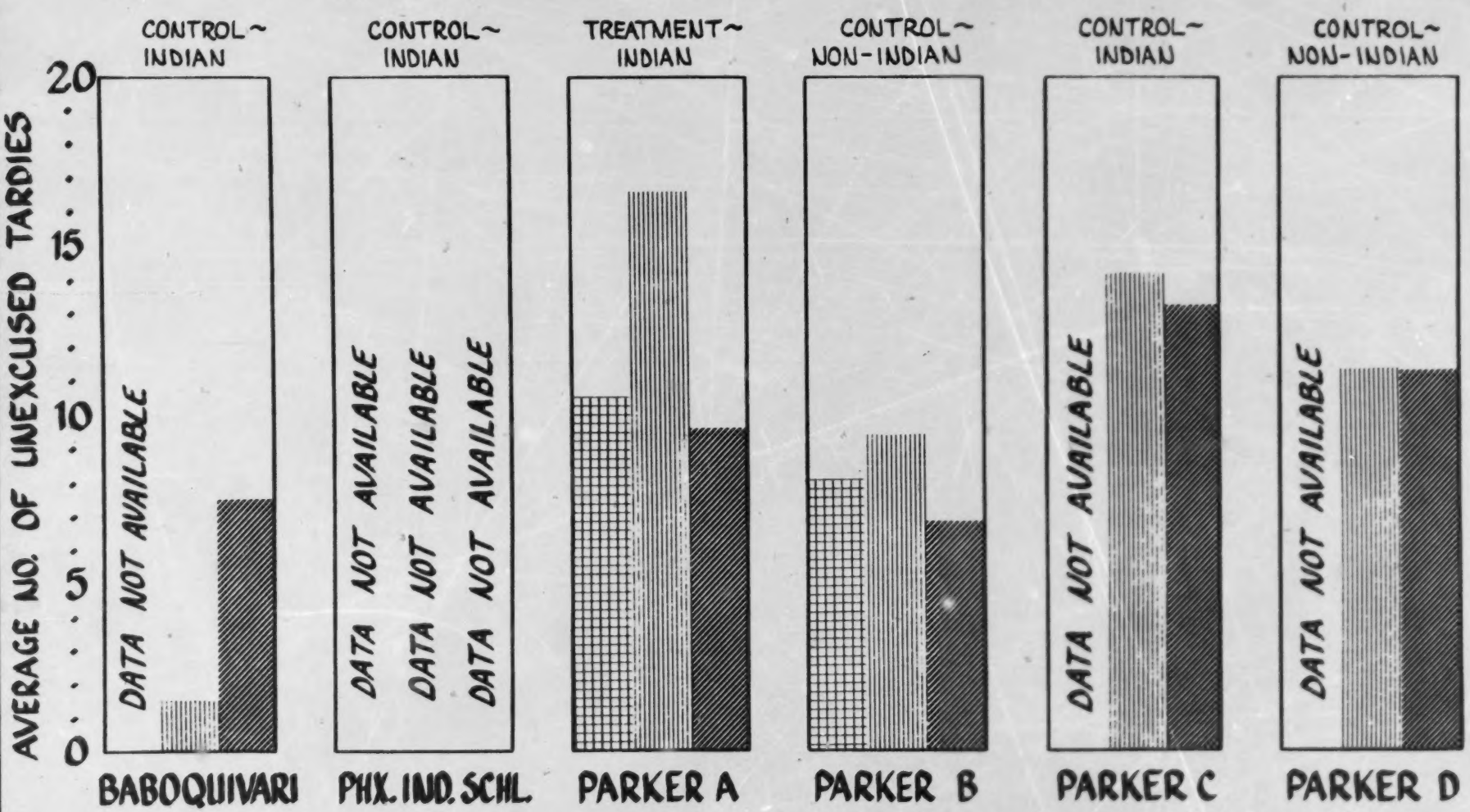
EXCUSED TARDIES



X^2 GRADE 9 = .60 (2 df)
X^2 GRADE 10 = 2.67 (5 df)
X^2 GRADE 11 = .76 (4 df)

Figure 3

UNEXCUSED TARDIES



X^2 GRADE 9= .32 (1 df)
X^2 GRADE 10= 12.80 (4 df)
X^2 GRADE 11= 2.88 (4 df)

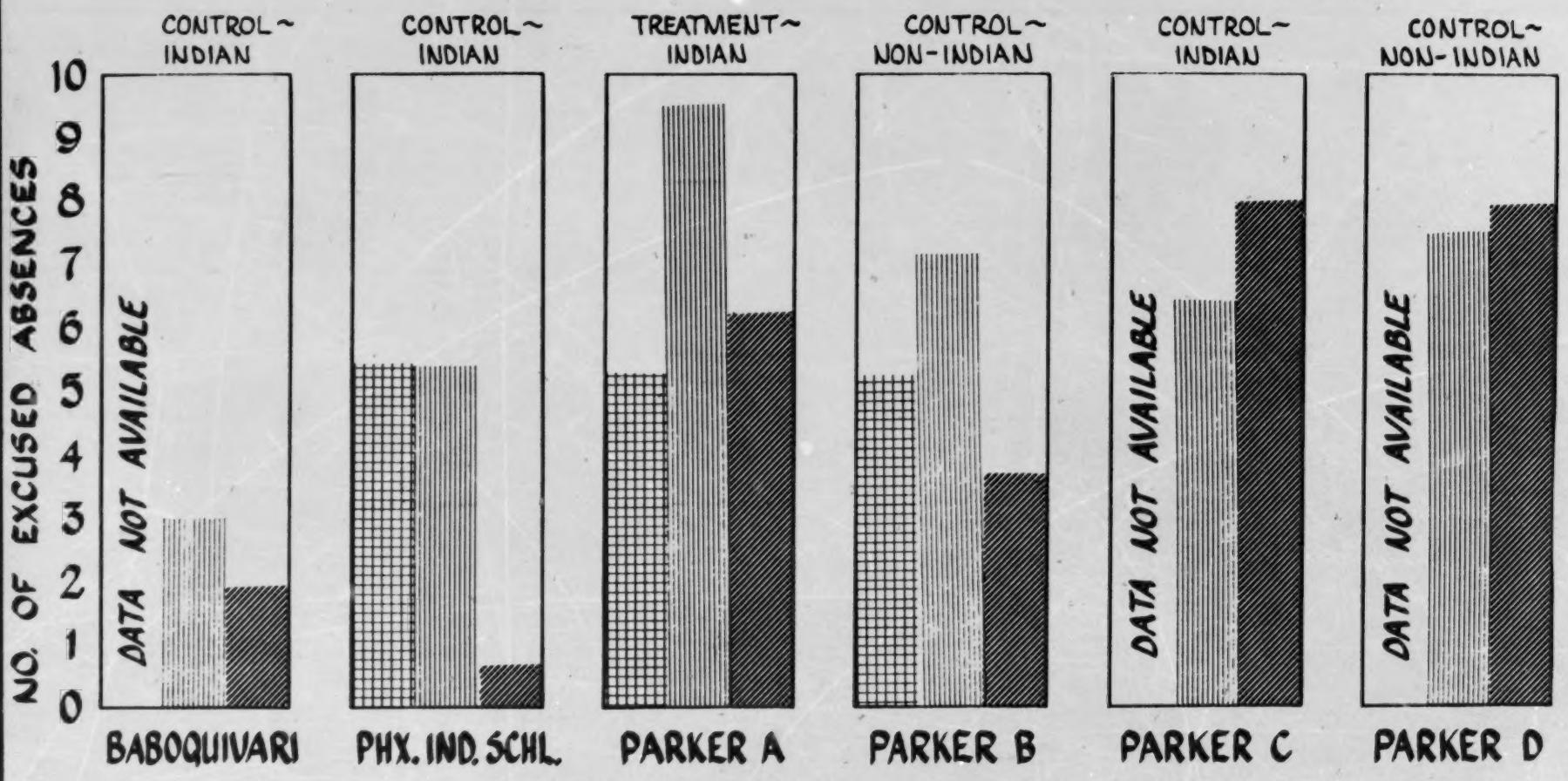
Figure 4

of unexcused tardies in the 9th grade (chi square .32 with 1 df, Figure 4), 10th grade (chi square 12.80 with 4 df), and the 11th grade (chi square 2.88 with 4 df). The mean number of unexcused tardies was not significantly different among the groups at the 9th grade level; however, at the 10th grade level, a chi square value of 12.80 was significant. After further analysis, it was determined that the low number of unexcused tardies at Baboquivari was the contributing factor. At the 11th grade level, the chi square value was 2.88 which was not significant. The conclusion was drawn that the treatment group did not significantly reduce mean numbers of unexcused tardies.

Figure 5 represents the mean number of excused absences for a full day. There was no apparent trend emerging from the data. The chi square statistic was computed for the 9th grade (chi square .08 with 3 df, Figure 5), the 10th grade (chi square 17.75 with 5 df), and the 11th grade (chi square 14.50 with 5 df). The chi square value of .08 was not significant at the 9th grade level; however, the chi square value of 17.75 at the 10th grade level and the chi square value of 14.50 at the 11th grade level were, in fact, both significant at the .05 level. By additional analyses, it was determined that the significance was due to the low number of excused absences for a full day in both the 10th and 11th grades at Baboquivari High School and Phoenix Indian School. The conclusion was drawn that the observed significant difference in mean numbers of excused absences for a full day was not due to the treatment program.

Figure 6 represents the mean number of unexcused

EXCUSED ABSENCES
~FULL DAY~



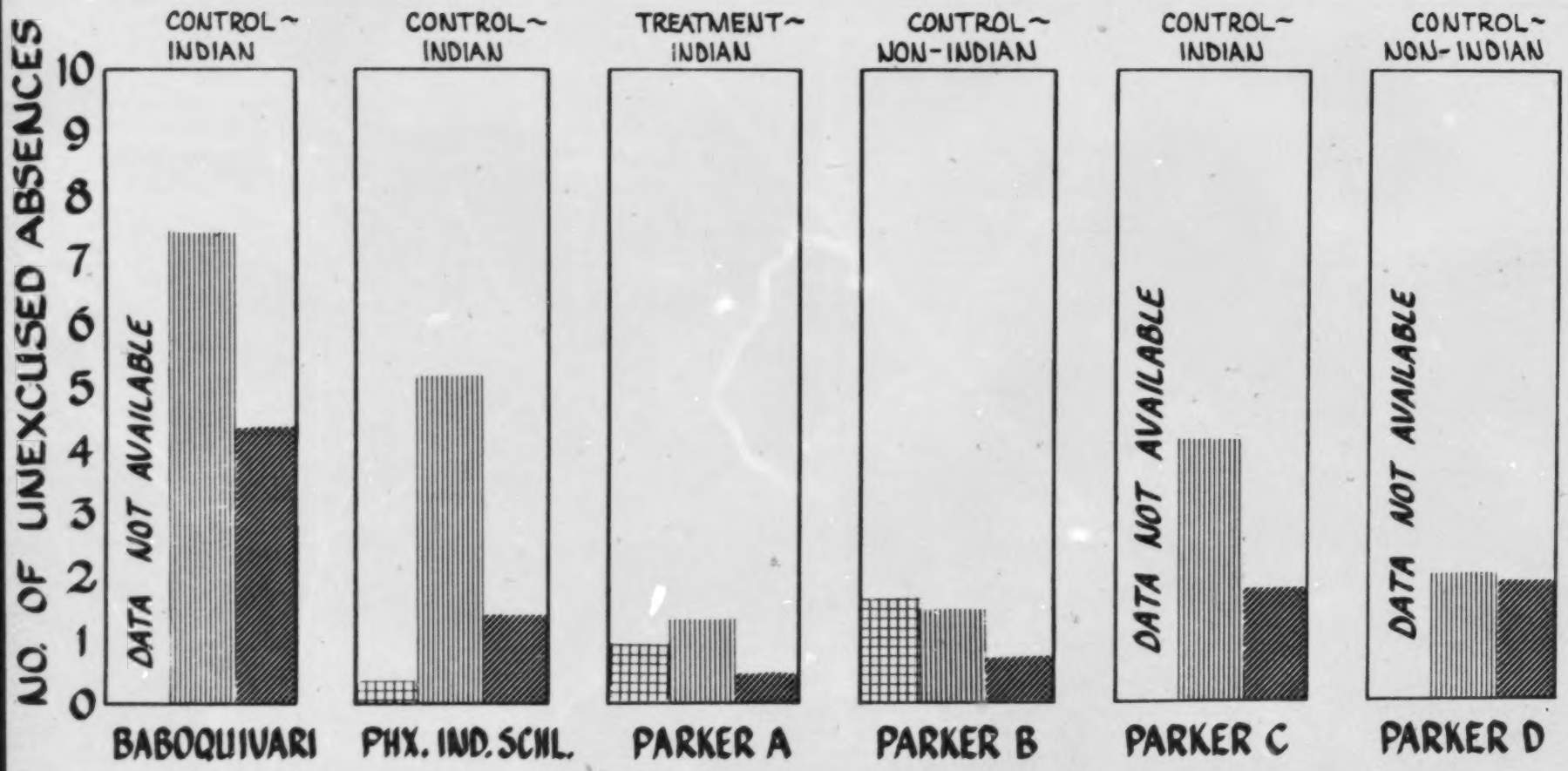
X^2 GRADE 9 = .08 (3 df)
X^2 GRADE 10 = 17.75 (5 df)
X^2 GRADE 11 = 14.50 (5 df)

Figure 5

GRADE 9 GRADE 10 GRADE 11

UNEXCUSED ABSENCES

~FULL DAY~



X^2 GRADE 9 = 2.05 (2 df)
X^2 GRADE 10 = 8.30 (5 df)
X^2 GRADE 11 = 6.94 (5 df)

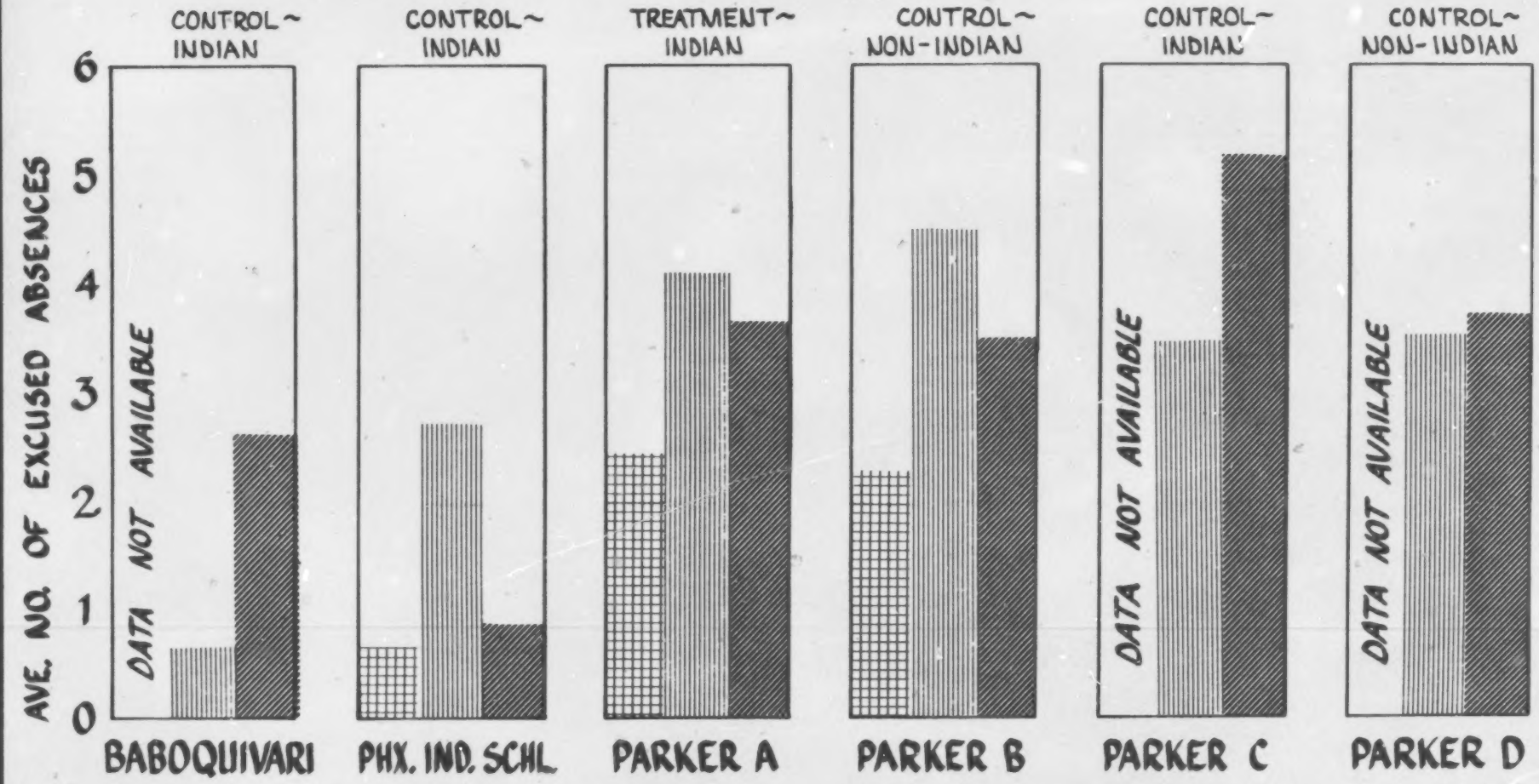
Figure 6

absences for a full day. There was not an observable trend in the data. The chi square statistic was applied to the mean difference of unexcused absences for a full day at the 9th grade level (chi square 2.05 with 2 df, Figure 6), at the 10th grade level (chi square 8.30 with 5 df), and at the 11th grade level (chi square 6.94 with 5 df). None of these chi square values were significant at the .05 level. The conclusion was drawn that there was no significant differences in mean number of unexcused absences for a full day among the groups.

Figure 7 represents the mean number of excused absences for less than a full day. There was no apparent trend observed in the data. The chi square statistic was applied at the 9th grade level (chi square 1.18 with 2 df, Figure 7), at the 10th grade level (chi square 3.04 with 5 df), and at the 11th grade level (chi square 3.25 with 5 df). None of the chi square values for excused absences for less than a full day were significant. The conclusions drawn were that there were no significant differences in the mean number of excused absences for less than a day among the groups.

Figure 8 represents the mean number of unexcused absences for less than a full day. The trend evident in the data was, in general, the mean number of unexcused absences for less than a full day was significantly higher in the groups that were located in schools other than Parker. A chi square value was calculated for the 9th grade level (chi square 1.17 with 4 df, Figure 8), 10th grade level (chi square 84.05 with 5 df), and 11th grade level (chi square 54.07 with 5 df). The chi square

EXCUSED ABSENCES
~LESS THAN FULL DAY~

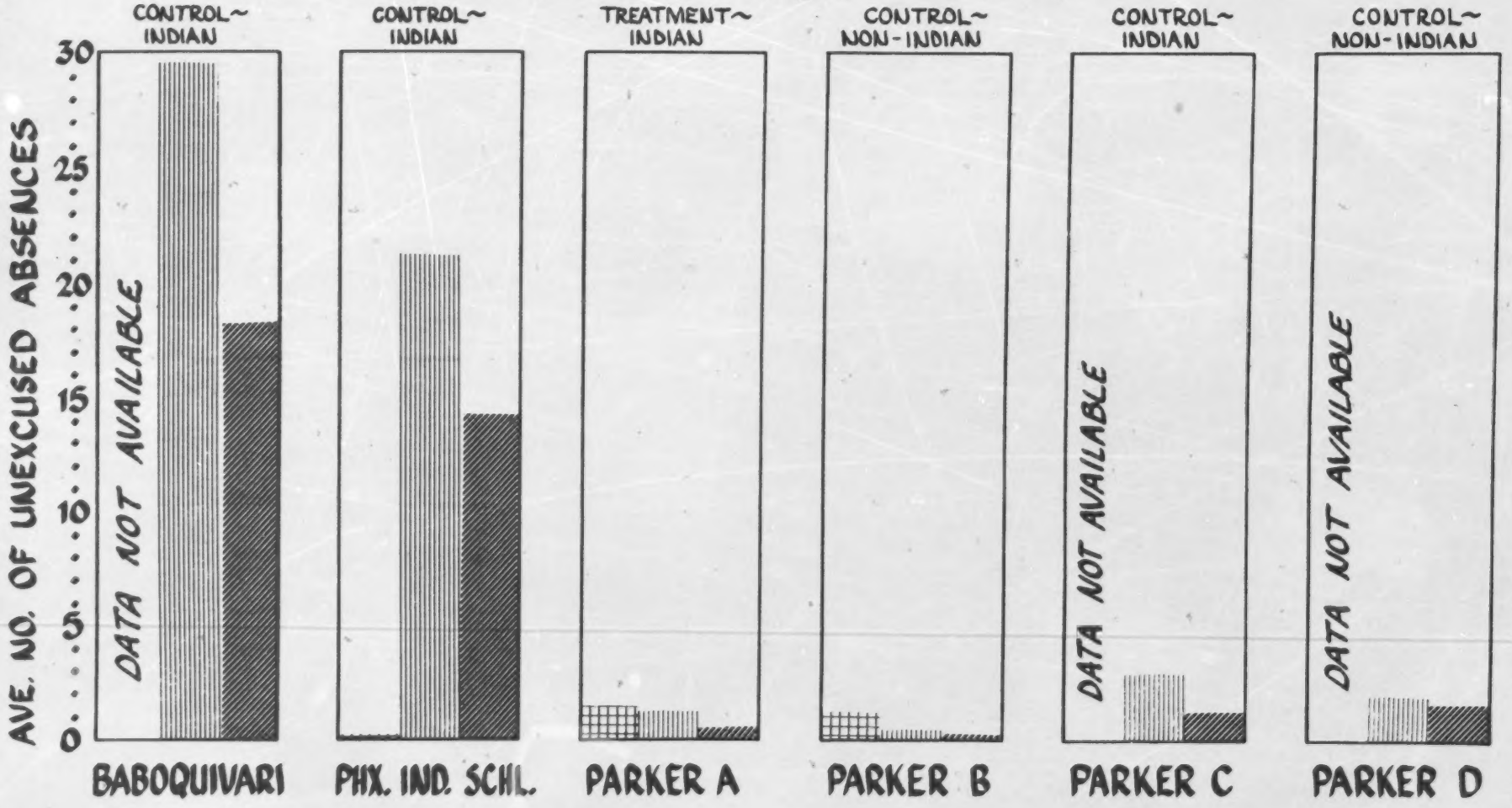


X^2 GRADE 9 = 1.18 (2 df)
X^2 GRADE 10 = 3.04 (5 df)
X^2 GRADE 11 = 3.25 (5 df)

Figure 7

UNEXCUSED ABSENCES

~LESS THAN FULL DAY~



X^2 GRADE 9 = 1.17 (4 df)
X^2 GRADE 10 = 84.05 (5 df)
X^2 GRADE 11 = 54.07 (5 df)

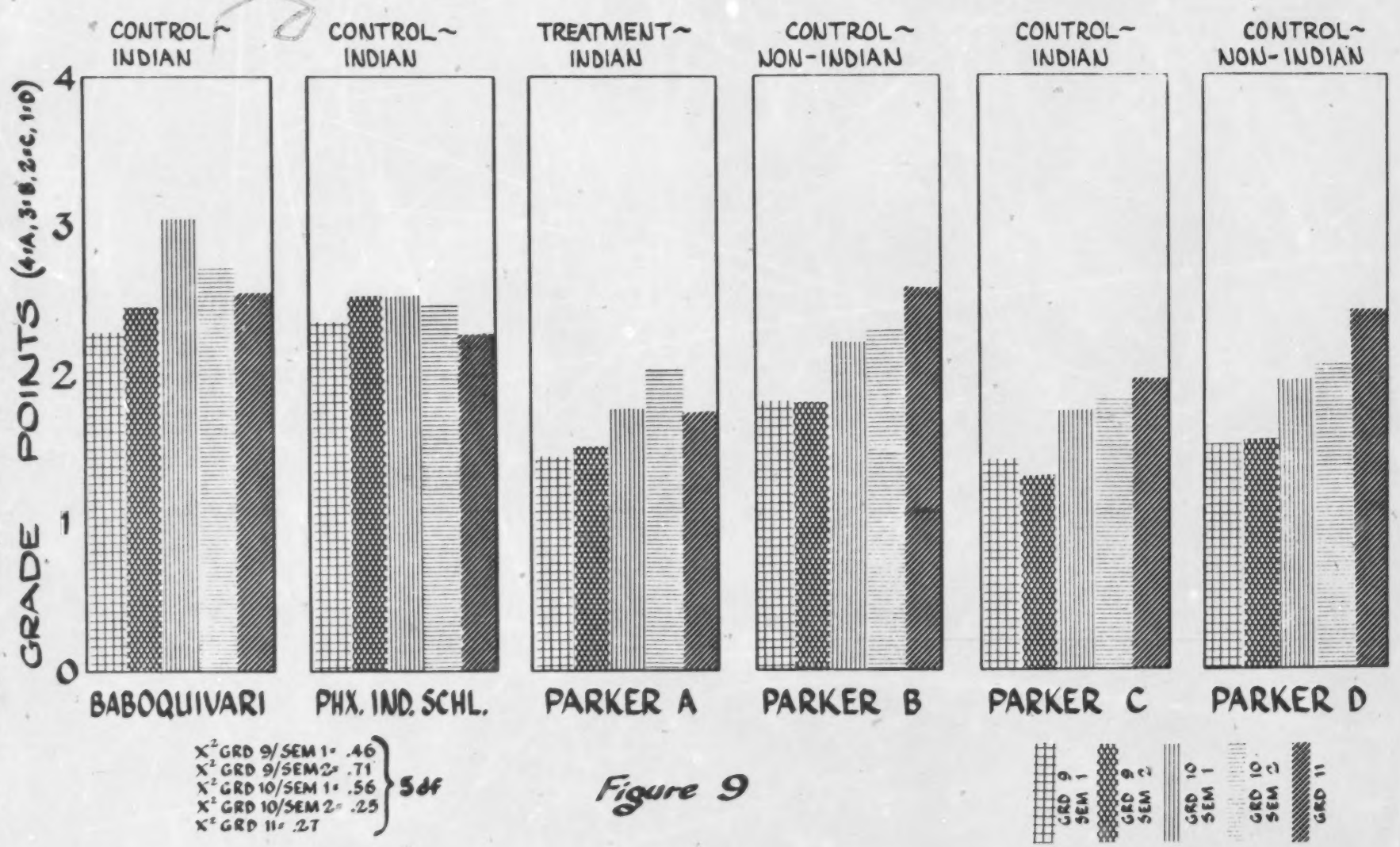
Figure 8

values of the 10th and 11th grades were both significant beyond the .05 level. After additional examination of the data, it was concluded that the significance was attributed to the significantly higher numbers of unexcused absences for less than a full day found at Baboquivari High School and Phoenix Indian School. There were no significant differences observed among the four Parker groups, therefore the conclusion is that the significant differences are attributable to school policies and not as an effect of the treatment program.

Figure 9 represents the mean grade point average. There was no visible trend noted in the grade point average. A chi square statistic was computed at the 9th grade 1st semester (chi square .46 with 5 df, Figure 9), 9th grade 2nd semester (chi square .71 with 5 df), 10th grade 1st semester (chi square .56 with 5 df), 10th grade 2nd semester (chi square .25 with 5 df), and 11th grade (chi square .27 with 5 df). None of these chi square values were significant at the .05 level. The conclusion was drawn that no significant effect upon the grade point average resulted from the treatment program.

The Vocational Awareness Interview was utilized at the start of the project and, again, at the end of the project (pre and post). Judges' ratings were used in determining whether the post interviews exhibited increased awareness, no increased awareness, or decreased awareness. The results of this analysis is shown in Figure 10. A chi square statistic was computed for the differences in the percentages of improvement in awareness

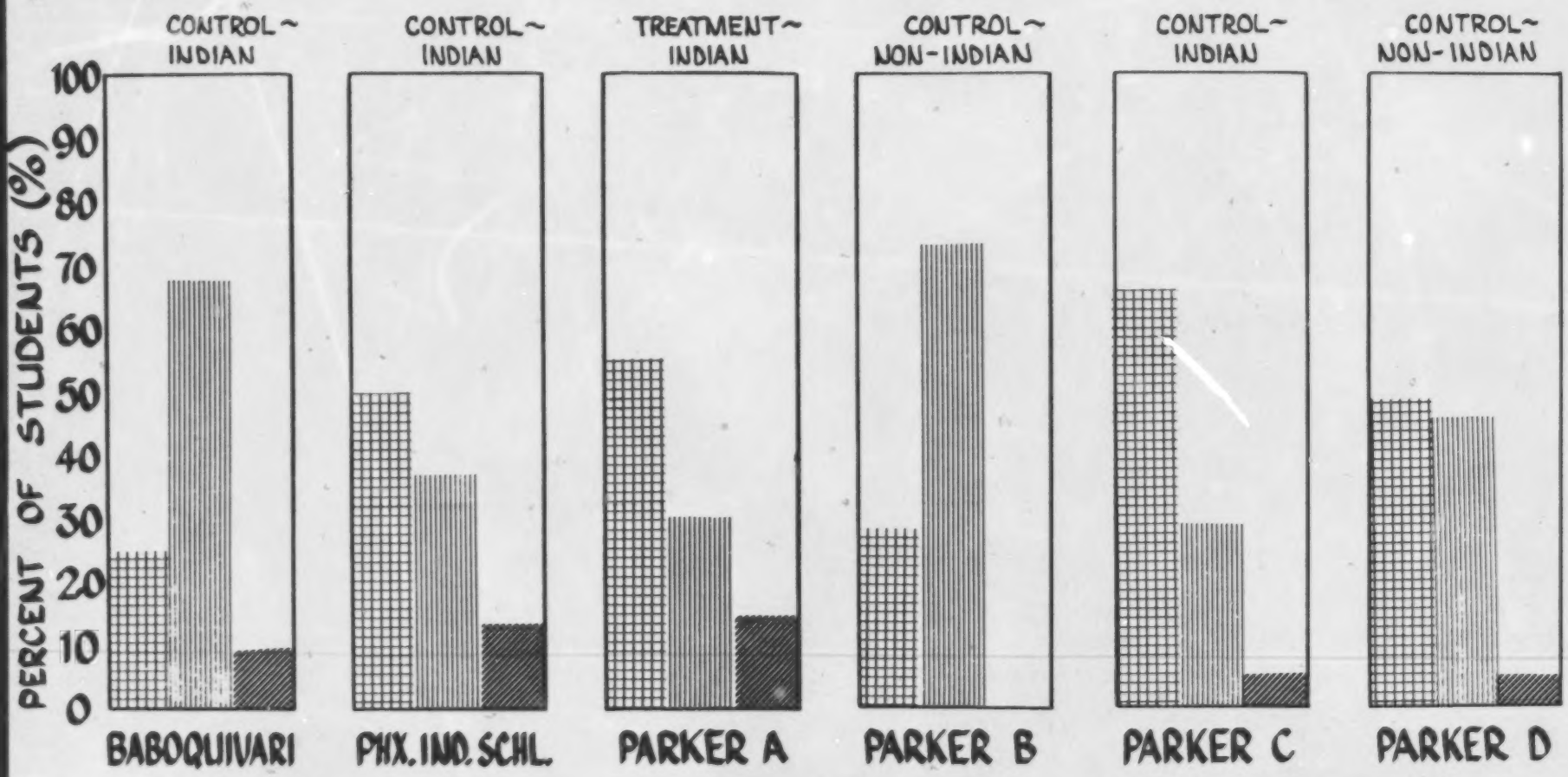
GRADE POINT AVERAGE



X^2 GRD 9/SEM 1 = .46
X^2 GRD 9/SEM 2 = .71
X^2 GRD 10/SEM 1 = .56
X^2 GRD 10/SEM 2 = .25
X^2 GRD 11 = .27
} 5 df

Figure 9

VOCATIONAL AWARENESS INTERVIEW



X^2 INCREASED = 33.08 (5 df)
X^2 SAME = 44.06 (5 df)
X^2 DECREASED = 13.71 (5 df)

Figure 10

(chi square 33.08 with 5 df, Figure 10), retained same awareness (chi square 44.06 with 5 df), or decreased awareness (chi square 13.71 with 5 df). All chi square values were significant at or beyond the .05 level. The conclusion was drawn that there was a significant difference in the awareness factors among the six groups presented in Figure 10. Upon analysis, it appeared that the sophomore Group B at Parker and at Baboquivari had a significantly lower percentage of students who improved in vocational awareness during the research period. The sophomore groups at Phoenix Indian School and Parker High School were significantly higher in percentage of individuals who improved in vocational awareness. Parker Group A, the treatment group, and the Phoenix Indian School offered a career awareness class for the students in their control group. When compared to sophomores, these two groups did improve in vocational awareness as a result of these efforts. Their improvement paralleled those of the two junior control groups (C & D). It is reasonable to assume that if the percentage of improvement was as significant as in this case, the percentage that retained same awareness and the percentage that decreased in awareness would also be significant. In conclusion, the treatment group did not significantly improve in vocational awareness over all of the control groups.

Table 2 represents the working/not working status of the groups at the time of the pre and post interviews.

TABLE 2

Working Status on Pre and Post Interviews

Pre Interview to Post Interview	Not Wkg to Not Wkg	Not Wkg to Wkg PT	Wkg PT to Wkg PT	Wkg PT to Not Wkg	Wkg FT to Wkg FT
Parker A	15	0	1	3	1
Parker B	4	2	5	0	0
Parker C	8	5	4	4	0
Parker D	7	3	8	0	0
Phs. Ind. School	4	3	0	1	0
Baboquivari H.S.	3	8	0	1	0
Yuma	3	0	1	1	0

Of the 20 students from Parker Group A who were administered the pre and post interviews, 15 (75%) were not working at the time of the administration of the pre or post interviews, 1 (5%) was working part time during the pre and post administration phase, 3 (15%) were working part time during the pre administration phase and were not working during the post administration phase, and 1 (5%) was working full time at the time of both interview administrations.

Of the 11 students from Parker Group B who were administered the pre and post interviews, 4 (36%) were not working at the time of the pre or post interviews, 2 (18%) were not working at the time of the pre administration but were working part time at the time of the post administration, and 5 (46%) were working part time at the time of both pre and post interviews.

Of the 21 students from Parker Group C who were administered the pre and post interviews, 8 (38%) were not working at the time of the pre or post interviews, 5 (24%) were not working

at the time of the pre interviews but were working part time at the time of the post interviews, 4 (19%) were working part time both at the time of the pre and post interviews, and 4 (19%) were working part time at the time of the pre interviews but were not working at the time of the post interviews.

Of the 18 students from Parker Group D who were administered the pre and post interviews, 7 (39%) were not working at the time of the pre or post interviews, 3 (17%) were not working at the time of the pre interview but were working part time at the time of the post interviews, and 8 (44%) were working part time at the time of the pre and the post interviews.

Of the 8 students from Phoenix Indian School who were administered the pre and post interviews, 4 (50%) were not working at the time of the administration of the pre or post interviews, 3 (38%) were not working at the time of the pre interviews but were working part time at the time of the post interviews, and 1 (13%) was working part time at the time of the pre interview but was not working at the time of the post interview.

Of the 12 students from Baboquivari High School, 3 (25%) were not working at the time of the administration of the pre or post interviews, 8 (67%) were not working at the time of the pre interview administration but were working part time at the time of the post interview administration, and 1 (8%) was working part time during the pre interview administration phase but was not working during the post interview administration phase.

Of the 5 students from Yuma who were administered the pre and post interviews, 3 (60%) were not working at the time of

the pre or post interviews, 1 (20%) was working part time at the time of the pre and post interviews, and 1 (20%) was working part time at the time of the pre interview but was not working at the time of the post interview.

Of the total number of students who were administered the pre and post interviews and who were not working at the time of the pre or post interviews (44), Parker Group A comprised 34%, Parker Group B comprised 9%, Parker Group C comprised 18%, Parker Group D comprised 16%, Phoenix Indian School comprised 9%, Baboquivari High School comprised 7% and Yuma comprised 7%.

Of the total number of students who were administered the pre and post interviews and who were not working at the time of the pre interview administration but were working part time at the time of the post interview administration (21), Parker Group A comprised 0%, Parker Group B comprised 10%, Parker Group C comprised 24%, Parker Group D comprised 14%, Phoenix Indian School comprised 14%, Baboquivari High School comprised 38% and Yuma comprised 0%.

Of the total number of students who were administered the pre and post interviews and who were working part time at the time of the pre and post interview administrations (19), Parker Group A comprised 5%, Parker Group B comprised 26%, Parker Group C comprised 21%, Parker Group D comprised 43%, Phoenix Indian School comprised 0%, Baboquivari High School comprised 0%, and Yuma comprised 5%.

Of the total number of students who were administered the pre and post interviews and who were working part time at

the time of the pre interview administration but who were not working at the time of the post interview administration (10), Parker Group A comprised 30%, Parker Group B comprised 0%, Parker Group C comprised 40%, Parker Group D comprised 0%, Phoenix Indian School comprised 10%, Baboquivari High School comprised 10%, and Yuma comprised 10%.

Of the total number of students who were administered the pre and post interviews and who were working full time at the time of the administration of the pre and post interviews (1), Parker Group A comprised 100%.

In conclusion, it was apparent that the Parker Group A did not change their behavior during the time of pre and post administrations on the working/not working continuum. If they were working at the time of the pre interview, they were working at the time of the post interview (3 exceptions). If they were not working at the time of the pre interview, they were not working at the time of the post interview (no exceptions). This characteristic was similarly observed in the Yuma group. However, this was not apparent with the remaining groups. In these groups, from 17% to 67% of the students who were not working at the time of the pre interview were working at the time of the post interview. The chi square value of 145.65, which was significant beyond the .05 level, was observed when comparing the percentages of change from not working to working part time among the groups. The groups which were responsible for this significance were Parker Group A and Yuma. The inference was drawn that the programs did, in fact, remove concern of immediacy on the part of

the students and may possibly be indicative of longer range planning than more immediate job try-outs.

Table 3 contains the data summary of the parental questionnaires administered to the parents of Parker Group A only.

TABLE 3

Parental Questionnaires

Do you think education is necessary?

19 parents answered yes. Responses:

1. to compete for better jobs (10)
2. to compete for higher paying jobs (5)
3. to better themselves (5)
4. jobs now require more education (4)
5. to compete for jobs with non-Indians (2)
6. standards of living are going up (2)
7. to achieve better working conditions (2)
8. to share ideas as Indians one must be able to talk on the accepted level of communication (2)
9. girls need education more, too, now (2)
10. to be able to choose a job one would really like (2)
11. peace of mind (1)
12. in order to plan for the future (1)
13. financial security (1)
14. to gain knowledge (1)
15. to help Indians develop talents as Indians (1)
16. to exist (1)
17. in order to get along, being a minority (1)
18. more opportunities are available with more education (1)
19. make a living (1)
20. jobs are hard to come by (1)
21. in order to improve Tribal life (1)
22. must learn to be independent families because Tribal lands and jobs will not always be here to depend on (1)
23. to give their children a better standard of living (1)
24. education means a healthier home (1)
25. parents need to learn how to motivate from the home (1)
26. need for parent education (1)
27. Need good background in reading and math (1)

How do you feel about the education _____ is receiving?

TABLE 3, Continued

9 parents answered "good"; 5 parents answered "OK"; 3 parents answered "needs improvement"; and 1 parent answered "not too good." Responses:

1. the students lack motivation (4)
2. lack of communication between the student and teacher (2)
3. inadequate job counseling (2)
4. teachers should spend more time with the individual student (2)
5. seems to cover almost all things (2)
6. funds are too limited (extra costs for art, band, sports trips, and vocational classes) for students needy but unable to classify for NYC jobs (2)
7. low grades (1)
8. the teachers don't understand (1)
9. classes should be more individualized (1)
10. teachers should be more interested (1)
11. students aren't learning enough (1)
12. need for more personal contact (1)
13. non-Indians continually put their standards on Indians (1)
14. not enough interest in students as individuals with their own abilities (1)
15. the grading is unfair because Indian students have a cultural handicap and therefore should not be graded according to the average population (1)
16. need more English for Indian students because English is essential to communicate (1)
17. well balanced (1)
18. need more counseling services (1)
19. vocations should be stressed more (1)
20. need more help in class selection (1)
21. need more tutoring (1)
22. seems to be good opportunities (1)

In what areas would you like to see the school be strong?

8 parents answered "vocational"; 7 parents answered "academic"; 2 parents answered "academic and vocational"; 1 parent answered "all areas"; and one parent answered "physical education." Responses:

1. more stress on careers and vocational training (6)
2. more college entry academics (college preparatory classes) (4)
3. more job counseling, job guidance and career orientation (4)
4. on-the-job training (3)
5. high school should be used to touch on all careers (basic needs for all jobs) (3)
6. stronger in grade school re: academic and vocational (job exposure) (2)

TABLE 3, Continued

Responses Continued:

7. academics provides a broader look at opportunities that vocational training wouldn't (1)
8. stronger in math and reading (1)
9. more communication skills (1)
10. need for better counselors (1)
11. stronger in physical education (1)
12. more motivation (1)

Do you feel that the school is adequately preparing _____ for the world of work? If no, how could the school improve?

5 parents answered "yes"; 10 parents answered "no"; 3 parents answered "yes/no"; 1 parent answered "it should"; and 1 parent answered "OK". Responses:

1. better job counseling (5)
2. students need more information on job opportunities and their requirements (4)
3. better and/or earlier counseling services needed (3)
4. school should help students select college classes or classes they'll enjoy and do well in (3)
5. make parents more aware of curriculum or activities (1)
6. put Careers class in freshman year instead of senior year (1)
7. have time in school year to participate in on-the-job training (1)
8. students should be encouraged more to investigate jobs while in school (1)
9. "Career Orientation" should start in kindergarten or grade school (1)
10. high school should help students prepare for college more (1)
11. more emphasis on slow learners on basic skills & training (1)
12. better quality teachers (1)
13. more communication between student/parent/teacher (1)
14. counselors should be aware of other duties in counseling besides only seeing the students when they are in trouble (1)
15. reading standards should be higher (1)
16. "Career Orientation" has enabled students to look more realistically at what the basic needs for their jobs are that they might be interested in (1)
17. it's giving him basic knowledge and a taste of different things (1)

Do you know about the "Career Education Program" in your school?

TABLE 3, Continued

3 parents had no answer; 15 answered "yes"; and 1 answered "no".

Would you like to become involved and know more about it? 3 parents had no answer; 15 answered "yes"; and 1 answered "no". Responses:

1. limited time(7)
2. no time (2)
3. would like more information (1)
4. too introverted to attend group meetings, appreciated someone coming to her for her comments (1)

In conclusion, it must be stated that the Indian parents have a strong feeling that education is important for their children and the top three reasons given centered around the theme of better jobs. About half of the parents felt that the education program their child was now receiving was good, while the remainder responded "OK", "needs improvement", or "not too good." Only five of the parents responded "yes" to the question, "Do you feel the school is adequately preparing _____ for the world of work?" Fifteen of the parents indicated that they would like to know more about the career education program in the school system. In conclusion, it must be indicated that the Indian parents see a need for education for their children so that they may better prepare themselves for the future and the Indian parents also indicated an interest in learning more about the career education programs in the school. At the same time, the Indian parents do not feel that the school system is adequately preparing their youngsters for the world of work, and a little less than half feel that their youngsters are receiving "good" educations.

During the eighteen months of this research program, members of Parker Treatment Group A had four reported contacts with the law. This was judged to be an improvement over past experiences by Tribal officials.

Conclusion: The following points should be re-emphasized here. The treatment program did have significant impact within the treatment group as regards the following indices of behavior: 1) significant reduction in school dropouts; 2) significant improvement in vocational awareness; 3) increased motivation toward future vocational opportunities; and 4) reduced contacts with the law.

In conclusion, it must be stated that Objective 4 was achieved and the treatment program did, in fact, instill motivation into the Indian youth that there is a future for them.

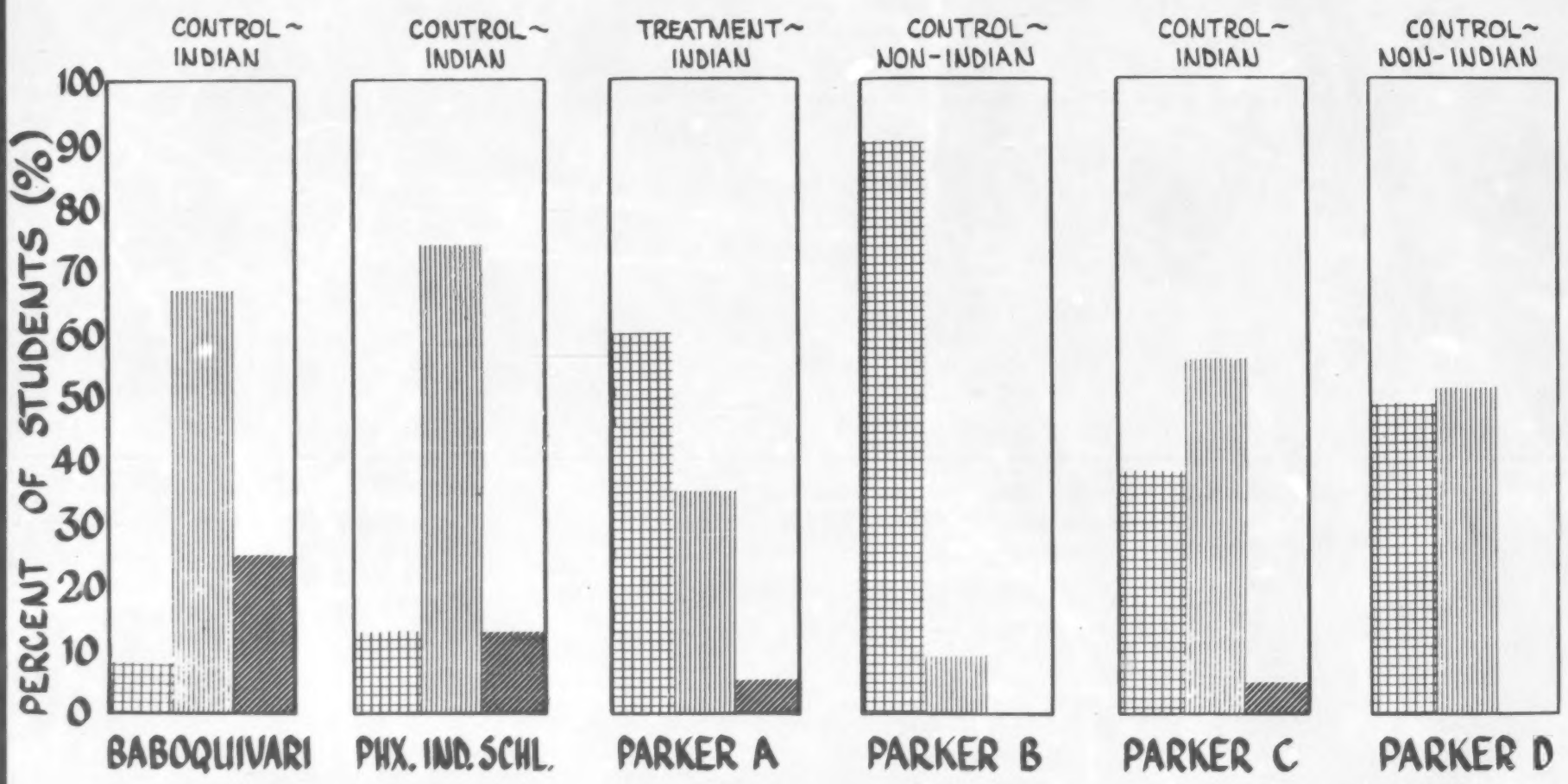
Analyzing the Effectiveness of Objective 5.

> Create a better understanding between the student and future employers.

Model Action: There was a research questionnaire designed to be administered to the student on a pre and post project basis (Figure 11).

Results: Figure 11 represents the Future Employer Awareness Interview. This interview was conducted at the start of the project, and, again, at the end of the project (pre and post). A trend was observed in the Future Employer Awareness Interview. The Parker sophomore Groups (A & B) were the only groups that percent of improvement in awareness were higher than percent that retained same awareness. This may give an indication of some contamination among the treatment group and the

FUTURE EMPLOYER AWARENESS INTERVIEW



X^2 INCREASED = 112.93 (5 df)
X^2 SAME = 62.33 (5 df)
X^2 DECREASED = 57.50 (5 df)

Figure 11

closest aligned matched control group. A chi square statistic was computed for the percentage of improvement in future employer awareness (chi square 112.93 with 5 df), percentage of retained same awareness (chi square 62.33 with 5 df), and percentage of decreased awareness (chi square 57.50 with 5 df). All three of these chi square statistics were significant at or beyond the .05 level of confidence. Upon additional detailed analysis of the data, the Parker sophomore Groups A & B were both significantly higher than Parker Groups C & D, Phoenix Indian School and Baboquivari High School. That accounted for all three significances.

Conclusion: In conclusion, the Parker A treatment group did not significantly increase future employer awareness over the control groups. However, the treatment group did significantly increase their awareness of future employers as measured by the Future Employer Awareness Interview.

Analyzing the Effectiveness of Objective 6.

> Career Orientation on the Colorado River Indian Reservation was to be expanded from one day on the Reservation to three days and was to be held away from the Reservation. This was to encourage more students to participate and make it possible to have the orientation near resource people and already existing facilities.

Model Action: The career orientation sessions and information were analyzed to determine compliance with Objective 6.

Results: In the early development and assessment of career awareness needs of the Parker High School Indian student, one overriding factor continued to surface--confusion. As a first step in remedying this confusion, the Rehabilitation Center sponsored a Career Orientation Seminar for local Indian youth.

This school-sanctioned activity was held at the Rehabilitation Center.

The one-day seminar consisted of Tribal members speaking to the students about their particular job. The majority of those individuals who gave presentations were successfully engaging in their respective careers in locations off the Reservation. These speakers generously donated their time and expense to return for this seminar. Approximately 50% of the Indian students attended the seminar and felt that it was beneficial.

The Rehabilitation Center staff concluded that a real need existed to provide students with positive models for identification, career information unique to the local area, and counseling follow-up to assure the student an opportunity to explore and learn in areas of his/her interests.

To achieve a more lasting effect and to reach more students, a three-day seminar was proposed. It was to be conducted outside the Parker area and nearer to more resource people. In this way, there would be a greater motivation to attend, and more time for each student to explore various careers.

Utilizing funds of this research grant, provisions were made for taking smaller groups of students on extended visits to existing resources or those planned for development in the near future. From experience gained in taking twenty-five to thirty students on three-day career orientation field trips, several conclusions were made:

1. The students were exposed to Indians working in many of the businesses that were visited, thus positive model identification was achieved.

2. There should be more effort made in identifying and reinforcing the positive model figures that existed in the local community.

3. The risks involved in supervising large groups far exceeded expectations. Many of the students were not accustomed to travel and being away from home.

4. A lower ratio of students to staff made the experience more lasting and meaningful.

5. The students in small groups, under twenty-five, had more positive experiences than those who were among large groups on trips.

Conclusion: Objective 6 was altered and not achieved as originally stated. However, positive models, positive direction and dissemination of career information was achieved.

Analyzing the Effectiveness of Objective 7.

> Expose the Indian youth to Tribal members and other Indians in a variety of professional and/or vocational endeavors.

Model Action: An analysis was made of the vocations and the occupational clusters to which youth were exposed during the past eighteen months. Such a listing was to provide the research team the data essential in analyzing this objective.

Results: In addition to those activities related in Objective 3, students were exposed to a variety of training positions.

A local seminar was conducted in which Tribal members and others currently involved in a variety of careers briefly explained their jobs, as well as related ones, and held small group discussions.

Speakers and professions included the following: (1) Mr. Rodney Lewis, Attorney, legal professions; (2) Ms. Carole

Garcia, Counselor, health professions; (3) Ms. Vikki Stevens, Doctor, medical professions; (4) Mr. Bill Alcaida, Farm Manager, agri-business vocations; (5) Ms. Veronica Murdock, Tribal Vice-Chairman, Tribal employment opportunities; (6) Mr. Bill Lawrence, Superintendent, Bureau of Indian Affairs, Parker Agency, Bureau employment opportunities; (7) Mr. Harry Patch, Jr., policeman, law enforcement vocations; (8) Ms. Sandra Dick, Administrative Assistant, secretarial and clerical vocations; (9) Ms. Maxine Morris, teacher, education vocations; (10) Mr. Ray Bernal, banker, banking and related vocations; and (11) Mr. Morris Sevada, Jr., foreman, electrical lineman vocation.

Cooperation with Tribal and Bureau personnel was outstanding. Students were involved in vocational areas such as hospital aides, secretarial and clerical, motor pool, judicial and law enforcement. While training they have been paid a small wage.

Seminars and field trips were utilized in introducing students to Indian personnel already in the work force. This not only provided models but also demonstrated that culture can be maintained in a competitive society.

Conclusion: Objective 7 was achieved and the treatment program did, in fact, expose students to successfully employed members of the Tribe.

Analyzing the Effectiveness of Objective 8.

> Provide school personnel with more efficient Career Orientation methodology.

Model Action: Present school officials the model, project results and interpretations of Advisory Committee recom-

mendations. The program staff imparted information to the school system with regard to how the school system could best approach career education for the Colorado River Indian youth. Such information was documented and was given to the research team in order that they could analyze the achievement of Objective 8.

Results: This program has been an attempt to create a model program.

Results and findings will be presented to school personnel for possible implementation within their curriculum if deemed feasible.

Parker High School has initiated two new classes at the freshmen level to provide career awareness: the World of Manufacturing and the World of Construction.

In addition, discussions between program staff and Mr. Alex Martinez, Vice-Principal at Parker High School, have included a variety of possibilities including curriculum changes, as well as alternatives to public education for those in need.

Conclusion: From the evidence provided to the research team and the knowledge that multiple copies of this final report will be given to the participating school systems, it was concluded that Objective 8 was met and, in fact, the treatment program did provide alternatives to schools on how they can best approach career orientation in a more effective and efficient manner.

SUMMARY AND CONCLUSIONS

Research conducted by the Colorado River Indian Tribes Rehabilitation Center revealed that Indian youth were inadequately prepared for the world of work. Among its findings were the following:

(1) Lack of career information available to Indian youth.

(2) Lack of Indian student direction and motivation.

(3) While representing 24% of the school population, Indian youth accounted for 45% of the failing grades all students received.

(4) Average reading levels at least 10 percentile points and three grade levels below the local average.

(5) High truancy and drop-out rates.

(6) A high instance of contact with the law among Indian youth.

In order to better prepare Indian youth for the world of work, a new program for the provision and dissemination of career information to Indian youth was designed, and eight specific objectives were set forth by which to test the program's effectiveness. Valpar Corporation was selected to:

(1) Assist in the technical aspects of designing an instrument that would determine whether or not each of the objectives was met.

(2) Conduct the analysis of the information provided.

An Advisory Committee was formed. This group, which met quarterly and functioned much like a Board of Directors,

approved the research study design and methods to be used in obtaining and reporting the results.

The Advisory Committee concept also provided program cohesion and a vehicle for apprising Committee members of program evaluation progress. An additional benefit derived from Committee membership was the opportunity afforded non-Indian members to both contribute to Committee deliberations and expand their cultural awareness.

The eight objectives set forth and tested were as follows:

(1) To better equip school counseling staff personnel to evaluate present and future career opportunities in their local areas.

(2) Existing career orientation programs will be studied and the results reported on how effectively they relate to Indian youth.

(3) Provided the student with information and exposure to job families that will be available to them following appropriate education and/or training.

(4) Instill motivation into the Indian youth that there is a future for them where they can follow any avenue they desire, without having to give up culture and tradition.

(5) Create a better understanding between the student and future employers.

(6) Career Orientation on the Colorado River Indian Reservation will be expanded from one day on the Reservation to three days and will be held away from the Reservation. This will encourage more students to participate and will make it possible to have the orientation near resource people and already-existing facilities.

(7) Expose the Indian youth to Tribal members and other Indians in a variety of professional and/or vocational endeavors.

(8) Provide school personnel with more efficient Career Orientation methodology.

In order to test the effectiveness of the above objectives, a research design was established which called for the creation of one treatment group and six control groups matched according to grade, sex, age (+ or - 6 months), I.Q. (+ or - 8 I.Q. points), and achievement (adademic testing, SRA, etc. + or - 1.5 grade levels). Findings of Program Research Analysis were as follows:

Objective 1 - There was increased awareness of services offered by the Tribes and how school problems may be related to cultural factors and a general impression that Indian students' attitudes toward school were much improved. There was no indication of increased awareness on the part of school personnel as to future career opportunities for Tribal youth in the Parker area.

Objective 2 - The on-going career awareness programs of the schools studied are rather typical of those found in most secondary schools. Effectiveness, in terms of reaching Indian youth as compared to reaching non-Indian youth, could not be determined. The Career Orientation Program given to the treatment group was more effective than the Career Orientation Programs of the control groups in keeping students in school and in improvement of future vocational awareness.

Objective 3 - The Career Orientation Project did expose students to a wide variety of immediate and future career possibilities. (Had the school counseling staff been able to participate in these activities, they would have become more aware of future career opportunities. This would have substantially altered the final conclusion reached in conjunction with Objective 1.)

Objective 4 - Significant positive impact within the treatment group resulted based on the following behavioral indices:

a) Significant reduction in schcol dropouts--only 8% for the treatment group.

b) Significant improvement in vocational awareness.

c) Increased motivation toward future vocational opportunities.

d) Reduced contacts with the law.

Objective 4 was achieved, and the treatment program instilled motivation into Indian youth that there is a future for them.

Objective 5 - The treatment group did not significantly increase in future employer awareness over the control groups; however, the treatment group did significantly increase their own awareness of future employers.

Objective 6 - Objective 6, as originally stated, was not met; however, positive models, positive direction and dissemination of career information was achieved.

Objective 7 - This objective was met. Exposure of students to successfully employed Tribal members was effected.

Objective 8 - Largely through the vehicle of copies of this report, which will be distributed among personnel from the participating schools, Objective 8 was and is accomplished. Alternative and efficient Career Orientation methodology as outlined in this report is available for inclusion into on-going school programming.

DISCUSSION & RECOMMENDATIONS

The Career Guidance Orientation Research Project represents an attempt to create a model for the dissemination of career information to school age youth. In the assessment of the effectiveness of this project, the research team utilized a treatment/control group research methodology which involved five Arizona high schools and 160 youth. The time frame of the study--18 months--extended from grade 10 to mid-grade 11. Treatment group youth received the benefit of vocational, personal and school counseling; seminars and chaperoned, sponsored job exploration field trips; and guest speakers.

School counseling and guidance personnel were kept informed of project activities and received in-service training regarding present and future career opportunities for Indian youth in their local areas, application methodology for educational funding and orientation to the unique characteristics of Indian youth. In addition, they were invited to participate in career awareness field trips.

The findings of Program Research Analysis as pertains to each of the eight specific program objectives can be found on Pages 61 and 62 of this report. The following recommendations are rendered based upon the results of the study:

1. A liaison counselor financed by the Tribes and selected through joint agreement between the Tribes and school both should be employed at Parker High School. This counselor's role should be that of student interagent (interventionist) with a broad base of operation consisting of youth, community, Reservation,

and school. A liaison counselor functioning in this manner should have an effectiveness capacity of 300 to 1. Role interaction between the liaison counselor and school guidance and counseling personnel should be defined through job description development and pre-school conference and should be periodically monitored for ongoing effectiveness. It is recognized that differences in counselor roles, i.e. functioning and methodologies employed, will exist between the liaison counselor and those guidance and counseling school personnel but that their respective roles are essentially complimentary, one to the other. It is anticipated that the liaison counselor's availability to provide services to youth may include much off-normal business hour time involvement and his/her counseling techniques and modus operandi will be much more informal than his/her counterpart on the school faculty.

2. Should the ingredients of this Career Guidance Orientation Project be adopted by schools containing a significant non-Indian minority, a liaison counselor should be employed and financed through funding sources germaine and available to that minority group or through other non-school system sources such as special interest groups.

3. Should the ingredients of this project be integrated through the school curriculum, it is recommended that a means be investigated to provide incentives for counselor and administrative staff participation in scheduled job awareness field trips.

4. The Tribes should form a parent advisory committee to include school administrators for the purposes of increasing communication between the school system, the home and the Tribes. Study results indicated parent interest in becoming involved in such an activity if appropriate time could be arranged.

5. The school systems should provide more modeling input as part of their Career Awareness Programs. Study results indicated that where this was accomplished, it proved to be one of the most effective methods of disseminating career awareness information. Student feedback revealed that this was one of their more enjoyable program involvements.

6. Should the ingredients of this Career Guidance Orientation Project be adopted by a school system, a pre-school teacher orientation should be conducted to inform teaching staff of its existence and to lend guidance as to how they may contribute to its effectiveness.

7. Students need to be made aware of career opportunities to a degree that will encourage them to observe workers of various types, both formally and informally, while engaged in off-campus school activities such as sporting events.

8. Though not a direct result of the findings of the research analysis, it is additionally recommended by the Advisory Committee and the research team that additional sources of funding in the form of mini grants for the purposes of job studies be thoroughly investigated.

9. In terms of cost effectiveness, it is recommended by the Project Staff and the Advisory Committee that a pupil-liaison counselor ratio of 300 to 1 as indicated in Recommendation 1 be established. The Project Staff felt that a budget including salary of liaison counselor, travel, field trips, etc. of approximately $30,000 per year would be adequate to support the essence of this program model. The dropout rate was reduced by 50% and for a school enrollment the approximate size of Parker High School, this amounts to ten students per year per counselor at a 300 to 1 ratio. The cost effectiveness benefit would then amount to $3,000 per retained potential dropout. The life time earnings of high school graduates over non high school graduates are conservatively estimated at $150,000. The net affect of the incorporation of such a program into school systems having a sufficient Indian enrollment appears to be quite substantial and justifiable in terms of expense.

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